THE BUILDER

INCORPORATING

"ARCHITECTURE" AND "THE BRITISH ARCHITECT"

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TEMPORARY HOUSING

THE Government has just published as a White Paper a review of the temporary-housing programme.* This discloses the somewhat alarming information that 156,667 houses included in this programme are now estimated to cost £215,905,000, that is to say, an average of £1,378 per house. This price does not include land, roads and sewers. The houses are sub-standard, having a superficial area of only a little over 600 sq. ft. To appreciate the economic loss to the country involved by the adoption of this temporary programme, against which both the present Government and its predecessor were repeatedly warned by all sections of the industry, one has only to place beside the above figure the £1,300 ceiling price which attaches to licences to private enterprise to provide houses outside London of 1,000 ft. super, complete with land, roads and sewers.

The aluminium houses account for £87,745,000 of the total. Aluminium is a material which could have been converted into a variety of goods for export, thereby greatly contributing to our dollar savings. The fitments which go into these houses, rainwater and soil pipes, baths, lavatory basins, fireplaces, heating and lighting units, etc., would have been available for permanent houses if they had not been preferentially allocated to these ten-year propositions.

The Government is now satisfied, after two and a half years of intensive misdirected activity, that the temporary-housing programme has been a mistake, and they will have no more of it. The figure of 156,667 houses represents the number now allocated to local authorities and, subject to minor adjustments, the programme is regarded as finished. The number completed in 1945 was 9,376; in 1946 a further 86,134 were added; and a further number of 43,596 were added in 1947. At the present rate of deliveries most types, except the aluminium houses, should be practically finished during the present month; the aluminium houses will not be completed until midsummer.

There may be some who think that, whatever the cost, the temporary programme has been worth while, in that it has produced houses that would not otherwise have been made available. There does not appear to be much justification for this view. As has been pointed out, the same fittings would have been available for permanent houses; it is only in the outside cladding that any saving has resulted, and much of that cladding has used normal building materials, such as cement and sand. There has been no saving in labour. Unusual techniques had to be learned which involved departures from the normal sequence of operations and rhythm of building. Further, the large unbalanced demand for certain types of material for the temporary programme created shortages on schemes of permanent houses, and this had its effect in slowing down the rate of production on these schemes. The interference with the customary practices of the industry has not been justified on any grounds whatever.

The Government's greatest fault in the handling of the housing problem has been that it has brought private enterprise to a standstill. It was not the contracting industry that built the large number of houses between the two wars; it was the highly specialised private enterprise house-building industry. The experience of the period between 1919 and 1926 (when the circumstances prevailing were very similar to those of to-day) was that the large demand for building materials created by an active private enterprise encouraged the manufacturers to increase the supply. Free enterprise on the part of the producers of materials and the exercise of a considerable amount of ingenuity resulted not only in increasing the supply but in making substitutes available. Such enterprise to-day is stifled; both materials and houses are being controlled out of existence.

The only function of the present report is to tell us what most people already know, namely, that estimates which are unrelated to actual tenders are apt to be conceived in a spirit of super-optimism, but the taxpayer in the end pays heavily for the window dressing of the politicians. The net increase in the cost of the aluminium house over the 1945 estimate is £245, bringing the latest estimate up to £1,610 per house. The major portion of this increase is attributed to an under-estimate of the cost of materials and fittings, and to set-backs which led to the peak production being reached later than was originally anticipated, with a consequent rise in overhead prices.

The increases for other types of houses are also given in the report. These increases vary from £83 to £130 according to type. The 1945 estimates were based on current prices, and no attempt appears to have been made to predict the future trend of price levels. An analysis of costs reveals an over-all increase for site works and erection of all types of £40, which is largely due to increases in wage rates and the prices of building materials. Distribution and transport account for the largest increase, amounting to £83 a house. This last increase, no doubt, includes the storage of parts while awaiting full assembly. The original estimate was based on unwisely optimistic assumptions that the temporary-housing programme would be completed by the end of 1946 and that storage would be needed for stock representing not more than three weeks' supply. Both of these assumptions proved erroneous. Local authorities were not able to acquire and develop sites in time, and the unbalanced production of component parts brought about an accumulation of stocks which had to be stored. This necessitated taking over a number of airfields and increasing the covered storage area from 1,700,000 super ft. to 2,700,000 super ft. A large part of the covered storage area was specially built to accommodate this work. The erection some years ago of these stores at a cost in the vicinity of one million pounds was itself regarded at the time as a priority job, both as regards building materials and labour, which might otherwise have been used for house-building. It would be interesting to know whether any part of this unproductive expenditure has been included in the final estimates of the cost of the temporary-housing programme. We would doubt it.

* Cmd. 7304, H.M.S.O. 3d.

NOTES AND NEWS

Editorship of "The Builder."

OUR readers will share the regret of the directors of *The Builder* at the resignation as Editor, owing to ill-health, of Mr. G. J. Howling, Hon. A.R.I.B.A. We are glad to announce that he will act as consultant and will contribute regularly to our pages. Mr. Howling joined the staff as Assistant Editor in 1925 and became Editor in 1937.

The directors have appointed Mr. Ian M. Leslie, J.P., as Editor. Mr. Leslie joined the editorial staff of the newspaper in 1926 and has been Associate Editor since Mr. Howling's appointment in 1937.

Mr. W. D. Bryant, who joined the paper in 1937, has been appointed Assistant Editor. He served during the war in the Rifle Brigade and Royal Army Service Corps with the rank, on demobilisation, of Captain.

Management of "The Builder."

MR. JOHN B. PERKS has been appointed to the post of General Manager of *The Builder*, a position held by his father, the late Bernard W. Perks, for the past 34 years. Mr. John Perks, who served as Flying Officer, R.A.F., first in Bomber Command and later in Air-Sea Rescue, being mentioned in dispatches, has also been appointed an Executive Director.

The "Tite."

THE announcement that the Tite Prize, that grand old stalwart of Italian architectural scholarship, is to be awarded in future for work of a contemporary nature, was received in the Henry Florence Hall at the R.I.B.A. on January 13 with widespread enthusiasm. Popular or not, the move will tend to reduce the span of scholarship embraced by the R.I.B.A. prizes and studentships. The present generation of architectural students, it is almost too frequently pointed out, is on the threshold of a new era of architecture and culture. Severance of connections with the past will in no way hasten the arrival of such an era. A student of music, however he finishes up as a musician, gains much by the study of Beethoven and Mozart. Picasso's stature as a modern painter has always been enhanced by the fact that in his early period he painted well within the spirit of the time. Generous comparisons, perhaps, but few will deny that the Italian Renaissance bequeathed to Europe a magnificent culture, and no student, during his intermediate period, would lose by acquiring a full knowledge of this culture. This is written in no mood of sentimentality for the past. The future must be served, but perhaps rather too much stress is laid upon architectural advancement in the purely constructional sense. The student of to-day may possibly not regret the change regarding the Tite Prize; it is his loss, but architects who know Italy and Italian Renaissance architecture will, in the future, always remember the "Tite" in its earlier form with pleasure and not a little respect.

Stevenage as Research Centre.

ACCORDING to a statement made last week by Mr. Herbert Morrison, Lord President of the Council, the Government have decided that the new town of Stevenage is to be given preference in considering sites for new scientific establishments in the London region.

Mr. Morrison added that a number of research stations would have to move from their present sites, which they had outgrown. He could not say what actual research would be located at Stevenage, or when it would come, but Stevenage

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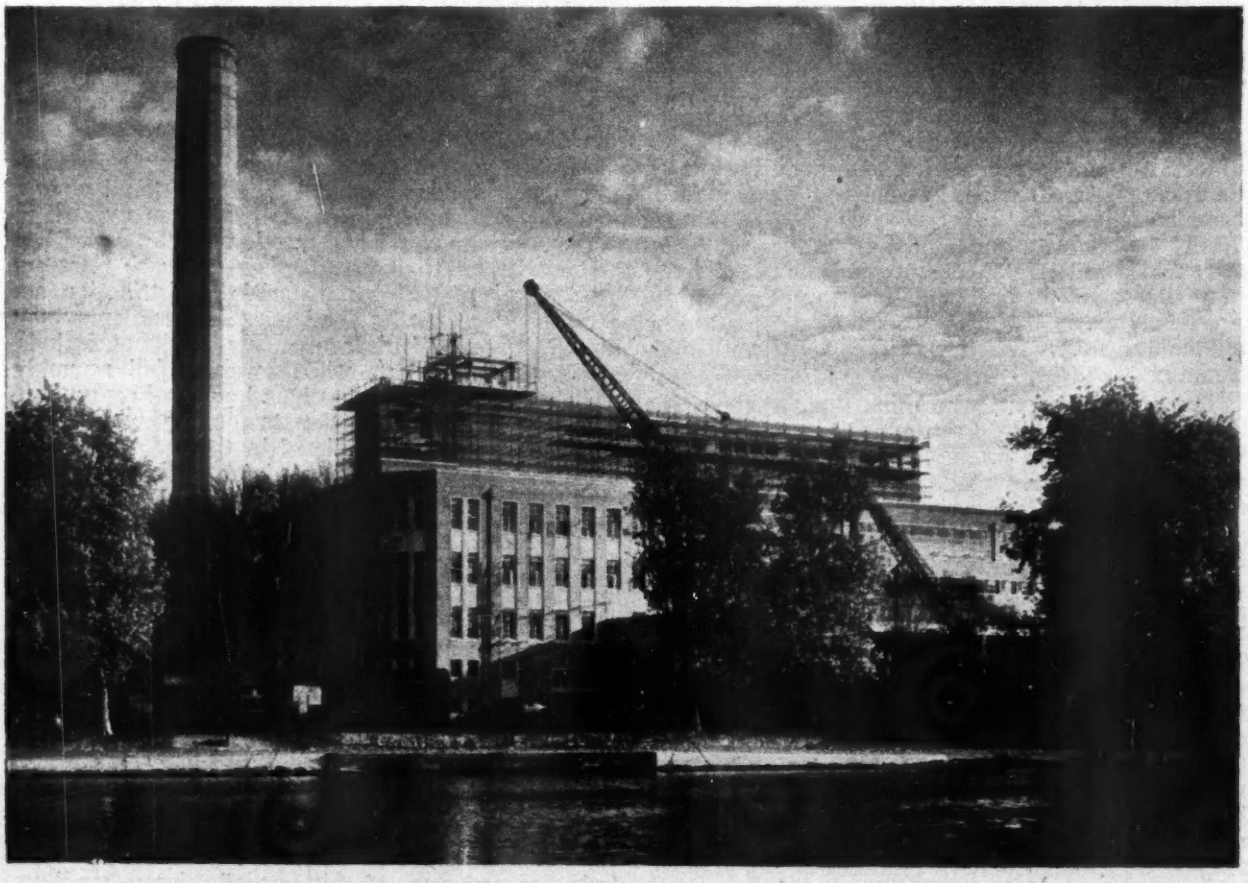


NEW POWER STATION, KINGSTON, SURREY. This power station is nearing completion, and the first section will shortly be in operation. Our photograph is taken from across the river Thames, and shows the 250-ft.-high reinforced concrete chimney. The consulting engineers are Messrs. Preece, Cardew and Rider, in association with Coode, Vaughan-Lee, Frank and Gwyther. The main contractors are Charles Brand and Son, Ltd.

would be one of the important scientific centres of the future.

Aluminium Schools Exhibition.

AN exhibition by the Bristol Aeroplane Company (Housing), Ltd., opened at the Central Hall, Westminster, on January 19 by Mr. G. Tomlinson, Minister of Education, shows a number of standard aluminium units which may be assembled in different ways to produce the buildings required in a modern school. This system of unit construction, which is designed to reduce the use of controlled materials to a minimum and to provide pleasant and permanent school buildings at an economic price, is the result of collaboration between the engineers and technicians of the company, its consultant architects, and the Northern Aluminium Company.

After viewing the exhibition, Mr. Tomlinson said that he saw the possibility of these units making a useful contribution to building in the not too distant future. He was glad that this type of school was not standardised, and was particularly pleased that the contractors were dealing with a material that was not in so difficult a supply position as timber and steel. He did not believe there was any danger of this type of building being regarded as temporary accommodation, and suggested that the Government should be prepared to sanction loans for these schools for 30 years.

Temporary Housing.

A REVIEW of the temporary housing programme to date is given in a White Paper published on January 19 (Cmd. 7304, Temporary Housing Programme: London, H.M. Stationery Office, price 3d.). It discloses that the estimated cost of providing 156,667 houses is now £215,905,00, compared with an estimate of £184,669,470 for 158,480 houses in 1945. The programme for aluminium houses shows the largest increase over the original estimate, accounting for £87,745,000 of the total cost. Details are given in the form of an analysis of costs of the estimates regarding each of the principal types of houses.

New University Buildings, Sheffield.

MR. J. S. BEAUMONT, M.C., B.A. (Arch.), F.R.I.B.A., of Messrs. J. W. Beaumont and Sons, Danlee Buildings, Spring-gardens, Manchester 2, has been appointed architect to carry out the first instalment of the proposed new University Buildings, Sheffield.

Conference on Architectural Education.

THE Ministry of Education is to hold a two-day conference on architectural education on February 27 and 28, at the Royal Institute of British Architects. The conference will be limited to heads of architectural departments and senior lecturers responsible for part-time architectural courses in technical and art colleges and schools in England and Wales. The director of the course will be Mr. W. M. Keesey, A.R.I.B.A., H.M. Inspector, and the lecture programme will include educational problems associated with preparation for the professional examinations, the relationship of academic studies to practical office experience, and the planning of a balanced curriculum. The course will commence at 10.30 a.m. on Friday, February 27, and finish at 5 p.m. on the following day.

Cheshire Advisory Plan.

A SECOND edition of "County and Palatine—A Plan for Cheshire," written by Mr. W. Dobson Chapman, in consultation with Mr. W. R. Davidge, and reviewed in our issue of May 2 last by Dr. H. V. Lanchester, has been prepared for sale at the price of one guinea. The new edition, which is bound in stiff covers and contains extra plates, can be ordered from any bookseller or direct from Country Life, Ltd., the publishers.

ENTRANCE TO LION BREWERY from Belvedere-road. From a drawing by A. E. Richardson, R.A.

COMING EVENTS

Monday, January 26.

GAUGE AND TOOLMAKERS' ASSOCIATION.—Gauge and Tool Exhibition. New Hall, Vincent-square, London, S.W.1. 10 a.m. (Continuing until Friday, February 6.)

Tuesday, January 27.

ROYAL INSTITUTE OF BRITISH ARCHITECTS.—"Recent Planning Development in the Colonies," by Sir Frank Stockdale, G.C.M.G., C.B.E., and detailed description of West Indian schemes, by Mr. R. J. Gardner-Medwin, B.Arch., A.R.I.B.A., A.M.T.P.I. R.I.B.A., 66, Portland-pace, London, W.1. 6 p.m.

THE INSTITUTION OF SANITARY ENGINEERS.—Sessional Meeting. Address by President, Mr. G. Lloyd Ackers, M.I.C.E. Caxton Hall, Westminster, London, S.W.1. 6 p.m.

PLUMBING TRADES NATIONAL APPRENTICESHIP COUNCIL.—Meeting. 81, Gower-street, London, W.C.1. 2.15 p.m.

Wednesday, January 28.

NATIONAL FEDERATION OF BUILDING TRADES EMPLOYERS.—Reception and Buffet Dance, Dorchester Hotel, Park-lane, London, W.1. 8.15 p.m.

LONDON MASTER BUILDERS' ASSOCIATION (CENTRAL AREA 4).—Area Meeting. Speaker, Mr. A. M. Skeffington, M.P. (West Lewisham). Chiesman's Restaurant, High-street, Lewisham. 12.30 p.m.

TOWN AND COUNTRY PLANNING ASSOCIATION.—"Planning Development Abroad—Russia," by Mr. Arthur Ling, B.A., A.R.I.B.A., A.M.T.P.I. 28, King-street, W.C.2. 6.15 p.m.

INSTITUTE OF WELDING.—The Sir William J. Larke Medal Paper read by J. Corston Mackain, A.M.I.Struct.E., A.M.Inst.W. The Institution of Civil Engineers, Great George-street, London, S.W.1. 6 p.m.

Thursday, January 29.

NATIONAL FEDERATION OF BUILDING TRADES EMPLOYERS.—Annual General Meeting. Victoria House, Bloomsbury-square, W.C.1. 10.30 a.m.

TOWN AND COUNTRY PLANNING ASSOCIATION.—Lunchtime meeting. Mr. H. Edward Newman on "The Internal Planning of the Home." 12.45 p.m.

Friday, January 30.

THE ROYAL COMMERCIAL TRAVELLERS' SCHOOLS.—Buffet reception. Grosvenor House, Park-lane, W.1. 7 p.m.

Professional Announcements.

MR. ALEC F. FRENCH, F.R.I.B.A., of Halifax House, Bristol, 1, and Westminster Bank Chambers, Plymouth, has acquired the practice of the late Harold E. Meredith, F.R.I.B.A., of Cleeve Lawns, Downend, Bristol.

On the retirement of Mr. J. H. Hollier from the practice of Mowbray Green and Hollier at 27, Queen-square, Bath, MR. F. W. BERESFORD SMITH, A.R.I.B.A., A.M.T.P.I., A.M.I.Struct.E., is joining MR. J. E. B. CARPENTER in partnership in the firm, which, in the future, will be styled Mowbray Green and Partners, and continued from the same address.

MR. E. MORLEY SMITH, F.I.A.S., A.R.I.C.S., chartered quantity surveyor, has taken over the south coast practices of Messrs. H. M. Doughty and Partners, and is continuing the same under his own name at 16, Cumberland-place, Southampton, and Arcade Chambers, High-street, Bognor Regis. Trade catalogues will be welcome. (Tel: Southampton 2795 and Bognor Regis 1459.)

MESSRS. H. E. FOSTER AND CRANFIELD, surveyors, 6, Poultry, E.C.2, would appreciate the receipt of catalogues, price lists, and general trade information.

FROM "THE BUILDER" OF 1848

Saturday, January 22, 1848.

ENGINEERS AND ARCHITECTS.—Very considerable dissatisfaction has been expressed by some of our correspondents on the ground that, while the architects who were engaged as surveying officers in inquiries last year, under the "Preliminary Act," had in no case been paid more than five guineas a day, the civil engineers who were employed on the same errand claimed and received double that amount. It seems scarcely likely that the Government drew such a distinction: the difference must have originated in the *modesty* of the architects themselves, who have not been on quite so many Government inquiries as the engineers, and were, probably, and very properly, anxious not to overstep the mark.

CORBUSIER REVISITED

PUBLISHED in Paris in 1924 under the title of *Urbanisme*, this well-known book* by Le Corbusier first appeared in an English translation by Mr. Frederick Etchells in 1929. Le Corbusier, in his preface to the new edition, seems surprised that the publishers should "insist categorically" on reprinting his work of 1924, and there will probably be others who will share that surprise.

The book consists of a number of articles on town planning which had appeared in *l'Esprit Nouveau*, an international review of contemporary activities, during the year which preceded the International Exhibition of Decorative Art in Paris, and, Le Corbusier explains, "we had been fighting for architecture, for town planning, and for the major arts, as against merely decorative art." The articles, particularly some of the earlier ones, were clearly propagandist and addressed mainly to the layman. Hence they contain much that is familiar to any architect or student of town planning. Even in 1924 the congestion of old cities and their unsuitability for modern mechanical transport were widely recognised, particularly by town planners.

That the author's original target was chiefly a popular one is clear from the way he besprinkled his text with platitudinous remarks like: "Our bodies demand sunshine"; "There are certain shapes which cast shadows"; "The eye perceives, the brain registers, the heart beats"; "The great city is born of the railway"; and "A city is a centre of intense life and effort." From the point of view of the architect or the town planner, the book would lose nothing of value by the omission of its obvious generalities. The only justification for their inclusion is that the book is now something of an historic document and therefore, presumably, we should be ready to paddle in its shallows as well as swim in its depths, or, to change the metaphor, to climb to its heights.

The real interest of the book for the architect and the town planner, of course, is found in the author's scheme for a "Contemporary City of Three Million Inhabitants," shown in November, 1922, at the Salon d'Automne in Paris; and it should be made clear that while Le Corbusier admits that "certain aims and proposals are now out of date," he sticks firmly to his principles. His chief principle is the straight line. He writes much of geometrical planning, but does not approve of the curve except in gardens. His plan is a giant rectangular gridiron with diagonals, his site away from any river and perfectly flat. There are streets every 400 yards, though occasionally these distances are divided to give streets every 200 yards. Three kinds of road are provided in superimposed storeys for (*a*) heavy goods traffic; (*b*) lighter goods traffic; and (*c*) fast traffic. Running north and south and east and west, and forming the two axes of the city, are great arterial roads for fast one-way traffic built on immense reinforced concrete bridges 120 to 180 yards in width and approached every half-mile or so by subsidiary roads from ground level. There is one central railway station, a subterranean building with a roof forming an aerodrome, and an elaborate inter-urban railway system consisting of tubes following the main arteries, an outer loop system of one-way traffic, and the main lines.

In the centre of the city are twenty-four skyscrapers, 700 ft. high, for business purposes, each capable of housing from 10,000 to 50,000 employees; they are widely and regularly spaced amid gardens, parks and avenues. Tubes discharge passengers into the basements of the skyscrapers. Around are the restaurants and cafés, the luxury shops, theatres, halls, parking places and garages. On one side of the skyscrapers are the public buildings, museums, municipal and administrative offices, and on the other, beyond the central city, the warehouses and the industrial quarters with their goods stations. The rectangular blocks surrounding the skyscrapers are "housing blocks" of two types, 160 ft. high. All round the city is a protected zone of woods and green fields, and beyond are the garden cities forming a wide encircling band and connected with the city by railway.

This is a mere bald outline of the scheme which Le Corbusier worked out in great detail and astonished the world with in 1922. He makes it quite clear that the whole conception aims at sheer efficiency and depends on mass production. "Repetition," as he says, "dominates everything." The whole city is ordered in its every detail. All the skyscrapers are alike; the housing is of two uniform types. It is a great engineering conception—truly a machine for living in. But Le Corbusier admits that he made one mistake with regard to the skyscrapers, which were cruciform. "These," he says, "vividly occupied my imagination and my plans over a period of ten years, and were to me as true radiators of light. *Later, I saw that a quarter of those who would be employed in these buildings would be working in rooms or offices facing north* [our italics]. So the cruciform skyscrapers were then replaced by buildings in the form of a Y or of a spine." Rather a naïve admission from one who would revolutionise planning and architecture!

The book includes illustrations and a description of Le Corbusier's application of his ideas to Paris, the "Voisin Plan," which would have involved the demolition of a great part of the historic heart of the city and which, oddly enough in view of the author's insistence on the right-angle, is mainly rhombic in its lay-out. Twenty-four years after, as "the result of studies much more closely approaching the realities of the situation," the scheme is now placed outside all the historical sections of the city, on the plain which stretches towards St. Denis between the hill at Montmartre and the *Buttes-Chaumont*. Some will think it is still not far enough out!

This book is certainly stimulating. No one can read it without appreciating the intense study the author has given to the problems of our old cities, his clear diagnosis of their many diseases, and the great originality of thought he has brought to the devising of what he regards as the right cure. But it is too drastic. Le Corbusier takes little account of human sentiment, and less still of geographical contours. The site of a city, he asserts, must be flat, the plan a gridiron. "You trace out straight lines, fill up the holes and level up the ground and the result is nihilism," said a great authority to Le Corbusier during a commission of inquiry into plans for a city extension. "Excuse me, but that, properly speaking, is just what our work should be," replied our author.

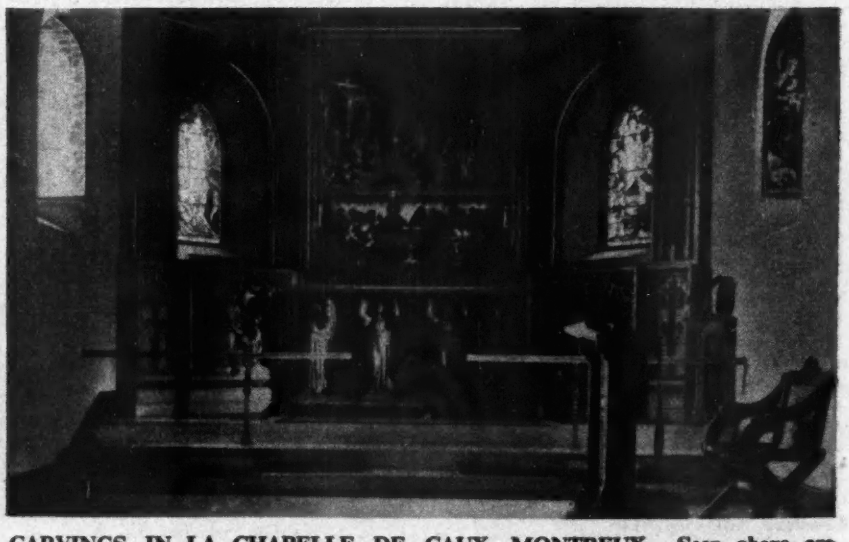
However much we disagree with his theories, we must thank him for causing us to think deeply about our own solutions. One thing which he stresses we are already doing and that is redeveloping large areas of land, where we can, in a big way. Le Corbusier says he is working out several plans for towns or districts for which he is responsible, "and in which the principles which were first enumerated in *Urbanisme*, in 1924, are now translated into action." We look forward to seeing these with keen interest.

G. J. H.

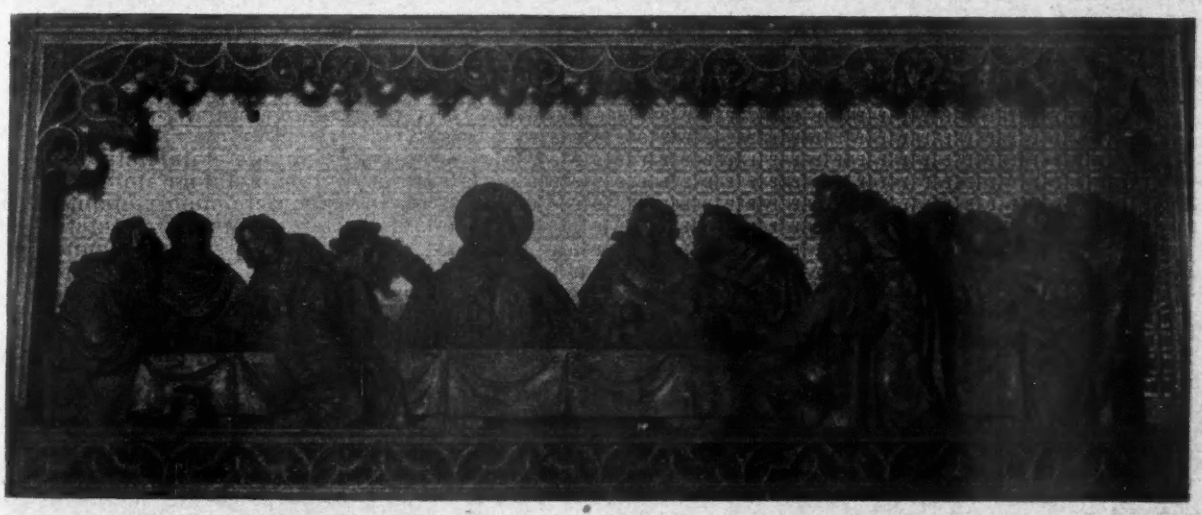
* "The City of To-morrow." By Le Corbusier. (London: The Architectural Press.) Price 15s. net.

Guide to Redevelopment.

A HANDBOOK entitled "The Redevelopment of Central Areas," which has been issued this week by the Ministry of Town and Country Planning, is the first of a series of publications which will deal with the technique of planning. This book, which is obtainable from H.M.S.O. (price 12s. 6d.), or from any bookseller, does not recommend any individual preconceived ideas of what a town ought to be like, but a healthy development based on past and present conditions in the town. A new method of daylighting control is described and problems of survey technique, parking and traffic problems and the provision of trees and open spaces are also dealt with.



CARVINGS IN LA CHAPELLE DE CAUX, MONTREUX. Seen above are carvings in this chapel above Montreux. Detail views of the panels are reproduced on facing page.



CARVINGS IN LA CHAPELLE DE CAUX, MONTREUX. Seen above are carvings behind the altar in the Chapelle de Caux, above Montreux, which have recently been cleaned by M. Ritschard. They are executed in fine quality boxwood and are about 50 years old. It is not known who did the carvings, but he or they came from Bruges. The arrangement of the panels is shown on the facing page.

"LIFE-FORCE IN ARCHITECTURE"

R.I.B.A. PRIZES CRITICISM

SOME thoughts evoked by a consideration of the work submitted for the R.I.B.A. Prizes and Studentships prefaced the criticism of the work given by MR. RALPH TUBBS, A.R.I.B.A., on January 13. The prize list was given in our last issue.

We take the following extracts from his remarks:—

I am departing from precedent this evening. I am going to be quite honest with you; the reason for this departure lies in the sterility of so much of the work submitted for the R.I.B.A. Prizes and Studentships, both this year and in recent years. The greater part of this work is commonplace or dead. Nor is this only my opinion; one has heard it voiced on all sides for some while. Some unfriendly people have blamed the Royal Institute for the dreariness of the annual exhibition of prize-work. With regard to this, all I can say is that the experience I have had during the past year as critic has shown me quite clearly that the blame does not lie with the Institute. It lies with the competitors and perhaps even more with those who were not competitors but should have been.

I propose to preface my criticisms by putting before you a theme on the nature of architecture. And for the reasons I have already stated, my theme is "Life-Force in Architecture."

I make no apologies for the abstract nature of this thesis, for until we understand what lies behind architecture we will never achieve architecture; for this great art is not just a combination of efficient planning, a beautiful sharpended 2H pencil and a knowledge of construction. For building to become architecture, it must be in accord with this thing which, for want of a better word, I call the Life-Force.

That a building should be in accord with this Life-Force is absolutely essential if it is to be architecture. If it is not, the building is sterile, meaningless, dead—like so much of the prize-work upstairs. But let me not be misunderstood. The statement that architecture must be inspired with the vitality of the Life-Force does not imply that all architecture should be vigorous and strident; on the contrary, it is more likely to be calm and subtle. We find the expression of Life-Force as much in a drop of dew as in the lightning, as much in the gentle profile of a balustrade as in the vigorous sweep of the concrete viaduct.

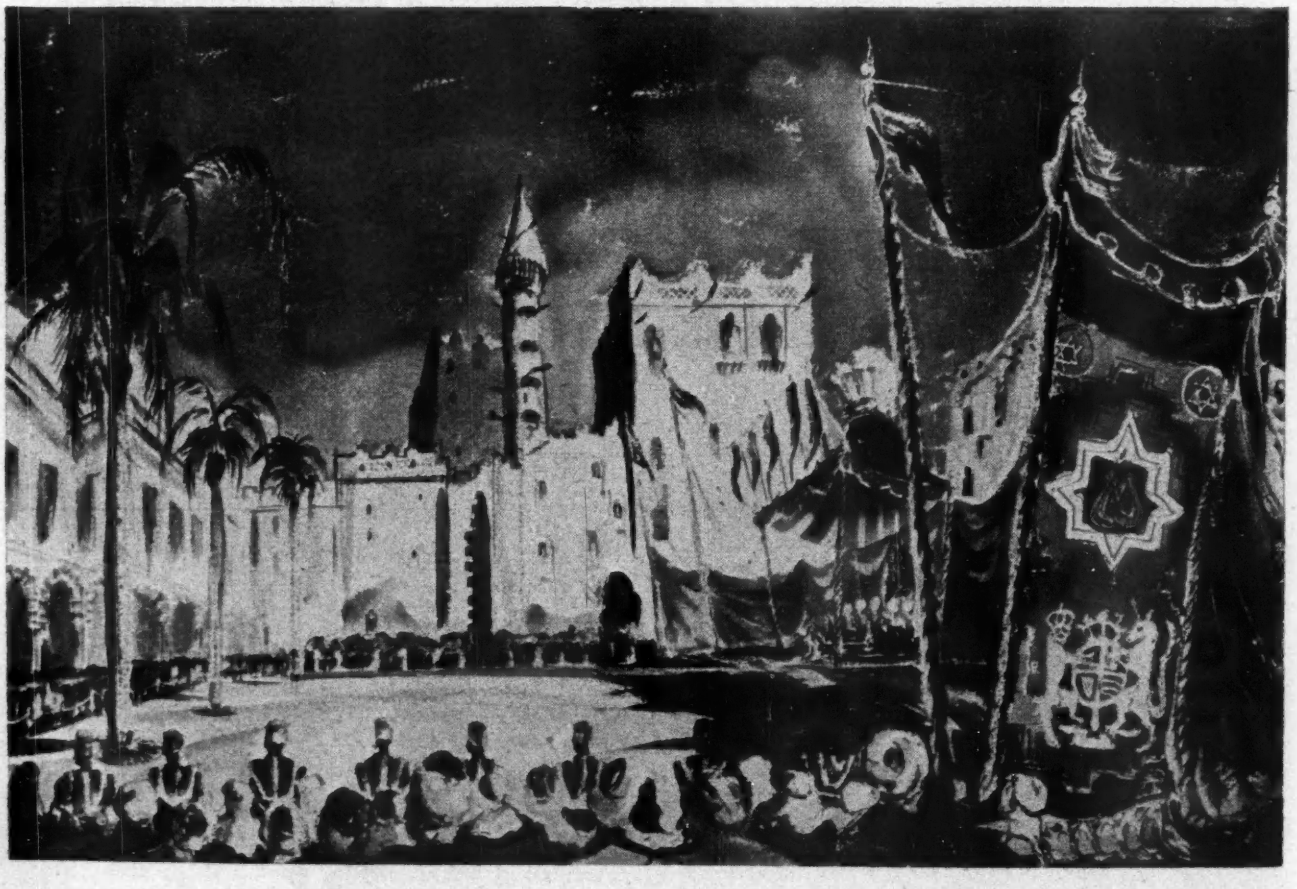
Let no one be misled into thinking I am presenting a new concept of architecture, that by introducing Life-Force as the basis of architecture I am being as bold as Mr. Summerson when he presented the "aedicule" theory of Gothic. What I am emphasising is no new theory; I am merely unearthing and presenting in the open the driving force behind all the fertile architectural movements of our day (and, it would be equally true to add, of any other great period of architecture).

Before examining the individual competitors' work in detail, let us consider the qualities which we should expect to find in an architect who creates work in accord with the Life-Force, so that we can later see if the competitors for the R.I.B.A. prizes reveal these qualities. First, I would put awareness, and would emphasise that awareness is a positive quality. Its philosophic definition is "consciousness considered in its aspect of *act*." It is, therefore, no passive state but implies an active response. It is the heart that "dances with the daffodils."

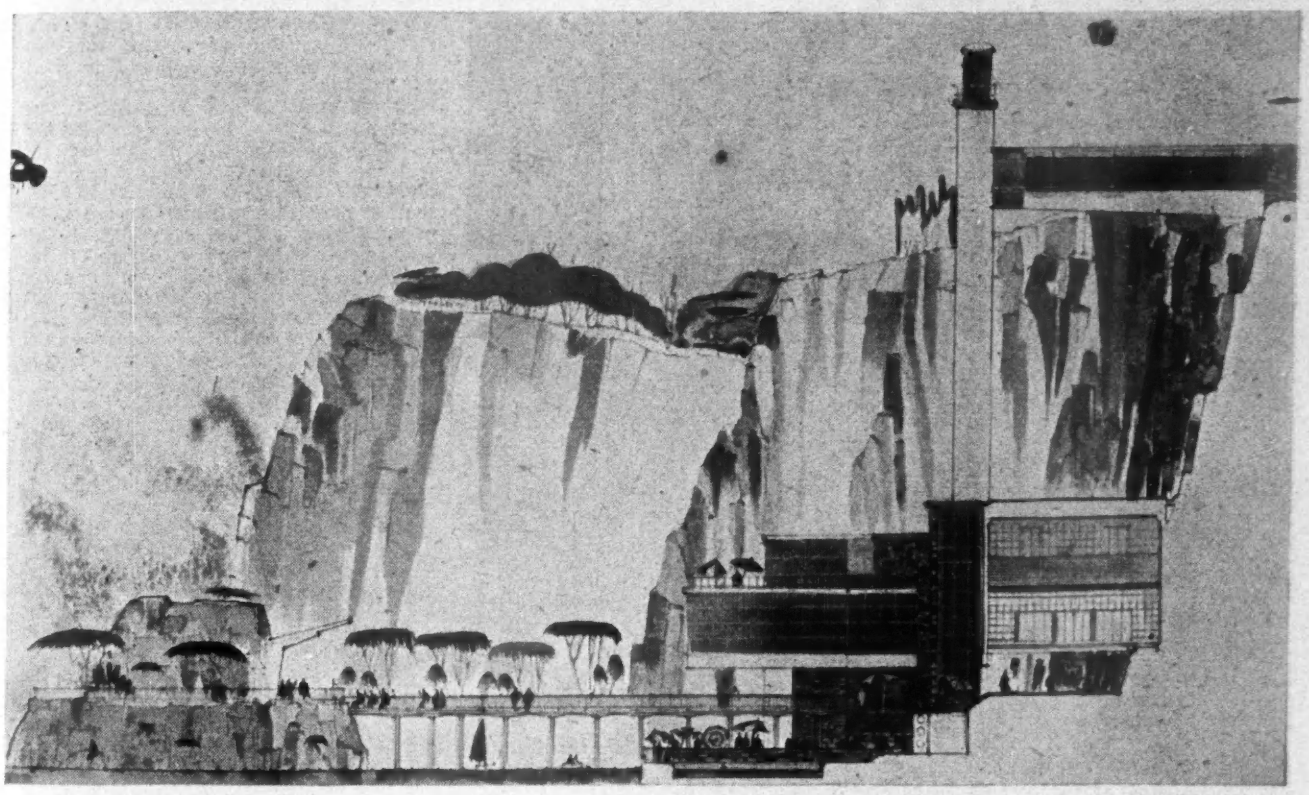
The second quality which is necessary, if an architect's work is to have significance, is a wide experience of life. This follows closely on awareness, for the man who is aware cannot fail to have wide interests, and if he has wide interests he will soon have wide experience. I realise, of course, that the young competitor for an R.I.B.A. prize cannot have had wide experience, but he can certainly have wide interests and this will help to bring balance and proportion to all he creates.

The third essential quality I wish to mention is the urge to create, for without this the architect or student is suffering from a temperamental disability. How can a man express the rhythm of the universe unless driven by a passionate desire to do so? This passion must drive him on and on and on.

Let us now turn to those qualities which are in conflict with the Life-Force. I would put architectural bombast first. This may be due to the pompous vacuity of the mind of the designer, to deliberate insincerity or to lack of self-confidence. It is a characteristic of the man who blows up his rubber pig until it is full of nothingness and spittle. Architectural bombast may take the form of unnatural symmetry or axiality, of disregard for the nature and character of the site, of forced scale or of decorative trumpery.



THE OWEN JONES STUDENTSHIP: A Covered Dais for a Royal Reception in East Africa. Winning design by Peter Hatton.

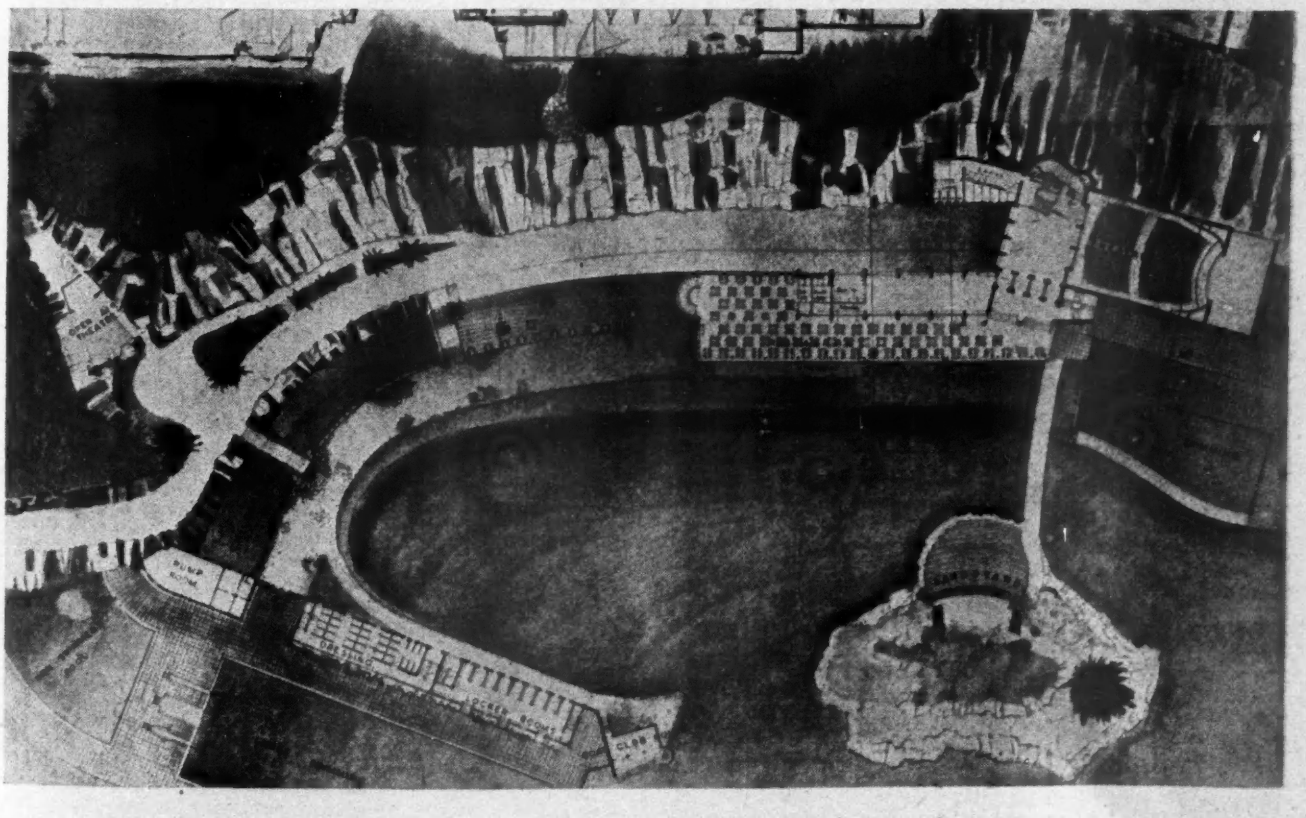


THE SOANE MEDALLION: A Beach Resort for an Undercliff Foreshore. Winning Design by John Ewing Murray, A.R.I.B.A.

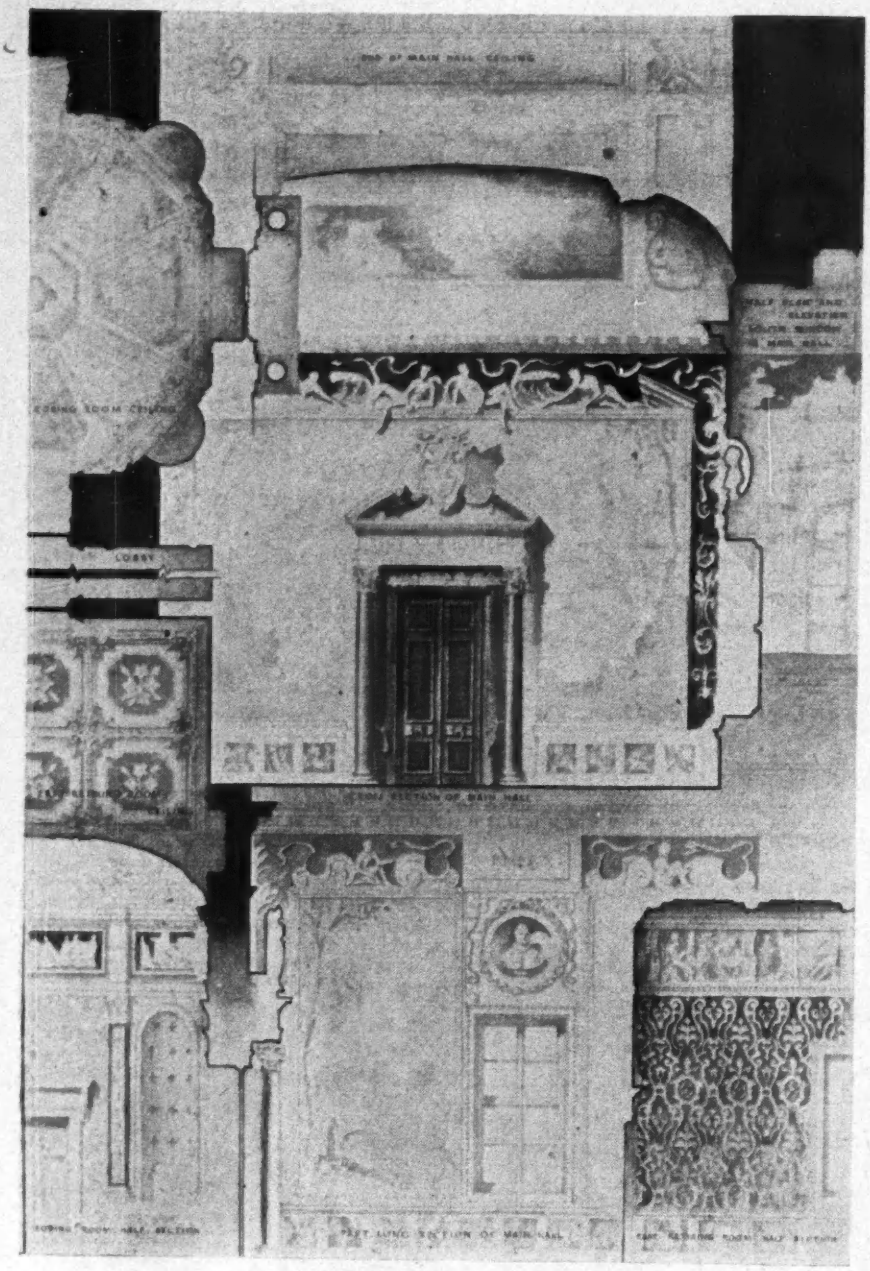
Cliché is discordant, too, for in cliché there is no life. I should make it quite clear that cliché is not to be confused with style. Cliché refers to a phrase or a motif used without careful thought to its significance.

A third enemy of the Life-Force is "a little learning." By this I do not imply that it is only high-brows who can create works of vitality, for many a peasant structure is in true harmony with the universe. It is the man who has lost his initial simplicity under a veneer of knowledge and yet has not acquired the second stage of simplicity in wisdom, who creates the worst architectural travesties.

The last contrary quality is the cowardly urge to want a reason for everything. There is far too widespread a notion that architecture is the child of logic and research. Such a child will



THE SOANE MEDALLION: A Beach Resort for an Undercliff Foreshore. Winning Design by John Ewing Murray, A.R.I.B.A.



THE TITE PRIZE : A Papal Reception Hall. Winning Design by Peter George Beresford.

never laugh nor cry. One of the parents must be poetry. Only then can the architectural child be in accord with the Life-Force.

I will begin with the Soane Medallion. Competitors were asked to design a beach resort on an undercliff foreshore. The competitors' awareness was put to the test. The vivid contrast of the horizontal plane of the sea and the precipitous cliffs, the eternal solemnity of the rock in the water, the mystery of the chine—did the competitors "notice such things"? One or two did to some extent, notably "Broadsider" (W. F. Mullins) and the winner "Esquire" (J. E. Murray), but on the whole these things seem to have been passed by.

"Esquire" associated his building with the cliffs; "Broadsider" made his dance in the water. Personally, I think "Broadsider" was right. He only just failed to win, but he failed because the jury felt there were some serious planning defects. "Esquire" has been sympathetic to the natural scenery by avoiding any interruption of the curve of the bay and by retaining some of the rugged qualities of the off-shore rock.

"Pegasus" and "Fessus" both failed to appreciate that the sweep of the bay was the most vital natural feature.

With regard to the Tite Prize; before considering the individual designs, which were required to be in the Italian Renaissance manner, I must say something on this bitterly contested question of designing in an historical style. I have listened carefully to every argument put forward by those in favour of designing in an historical style, but I remain convincedly against it. I am very pleased, therefore, to be able to reveal to-night that I have just heard that the Prizes and Studentships Committee have agreed to recommend to the Tite Prize Jury that in future this prize should be for a design in a contemporary natural way.

This year the subject set was a Papal Reception Hall to be erected on a rocky outcrop beside an Italian lake.

Let me begin by congratulating the winner, "Colebank" (P. G. Beresford). He gets over the problem of the two approaches by bringing visitors from road and lake into a forecourt. Of his drawings, the sheet of interior design is the most noteworthy. It shows a rich and fertile imagination, full of the urge to create. But it is very difficult to disentangle this drawing—and juries do not like that. I overheard one member say it reminded him "of the oriental who inscribed his name and those of all his family on a grain of rice."

"Ergo's" (J. D. Shearer) building sits well on the site, and "Baroque's" (R. De-Ath) reception hall is two storeyed, and has galleries. I am told it is not done to look down on the Pope.

"Vindex" tried to overcome the problem of the two approaches by converging the two axes on to a single point and entering the building from there. It is an ingenious idea, but renders the building too independent of the site. "Bystander's" building has a simplicity which is characteristic of Italy, but the entrance elevation ignores the plan. "Sebastian" had the courage to create in simplicity and the cool serenity of his interior has considerable quality, but this design fails on plan.

The third of the prizes, in which the emphasis is on æsthetics, is the Owen Jones Studentship for the study of colour theory. Candidates are required to submit a portfolio of studies of existing works, together with one or more original designs. "Rajah" (P. Hatton), in a fascinating notebook, has particularly well portrayed the spontaneity in the use of colour of primitive peoples. He portrays the Life-Force in the primitive, but does not show it in his own work.

Design and construction are not two separate things. In the award of the Grissell Gold Medal, the jury gave consideration not only to the efficiency of the working drawings but also to the quality of the design. The subject set was a Covered Swimming Pool in a Seaside Town. There were seven entries and some of the drawings were of a very high standard, especially those of "Hap." But unfortunately "Hap's" design was altogether too sophisticated for a site on the north Cornish coast. "Larbrax" (H. A. Wheeler), however, although not producing such good drawings, made a design which showed a greater awareness for the site and his construction was economical and clean. To him the Medal was awarded.

The Archibald Dawnay Scholarship is offered to students in the third year of their course. A number of good working drawings were submitted, but many of the designs were so utterly sterile that one secretly hoped that the construction was such that the buildings would fall down.

There were two entries for the Pugin Studentship. The award was made to Mr. G. M. Harper, who submitted some excellent sections of Gothic architecture and a very delicate drawing of the West Front of St. Mary Bolton. But why does Mr. Harper give a hard silhouette to all his buildings?

With so wide a range of prizes it has only been possible to review the work submitted broadly, paying special attention to its general nature and spirit.

I cannot believe that the young architects and students of to-day have no more to offer than this. A visitor to the exhibition of R.I.B.A. Prize-work should find himself face to face with the best and most vital creations of a rising generation. I hope that next year and in years to come those with these ideas will enter.

THE NEW HOUSE OF COMMONS

SIR GILES SCOTT., O.M., R.A., P-P.R.I.B.A., in association with ADRIAN GILBERT SCOTT, M.C., F.R.I.B.A., ARCHITECTS

THE DEARTH OF QUALIFIED stonemasons is holding up constructional work on the new House of Commons, the first stones of which are expected to be laid in a few days' time. Twice the number of craftsmen are needed as are at present employed on the job, to deal with the 115,000 cubic feet of Clipsham stone and 50,000 cubic feet of Portland stone that are being quarried for the new building.

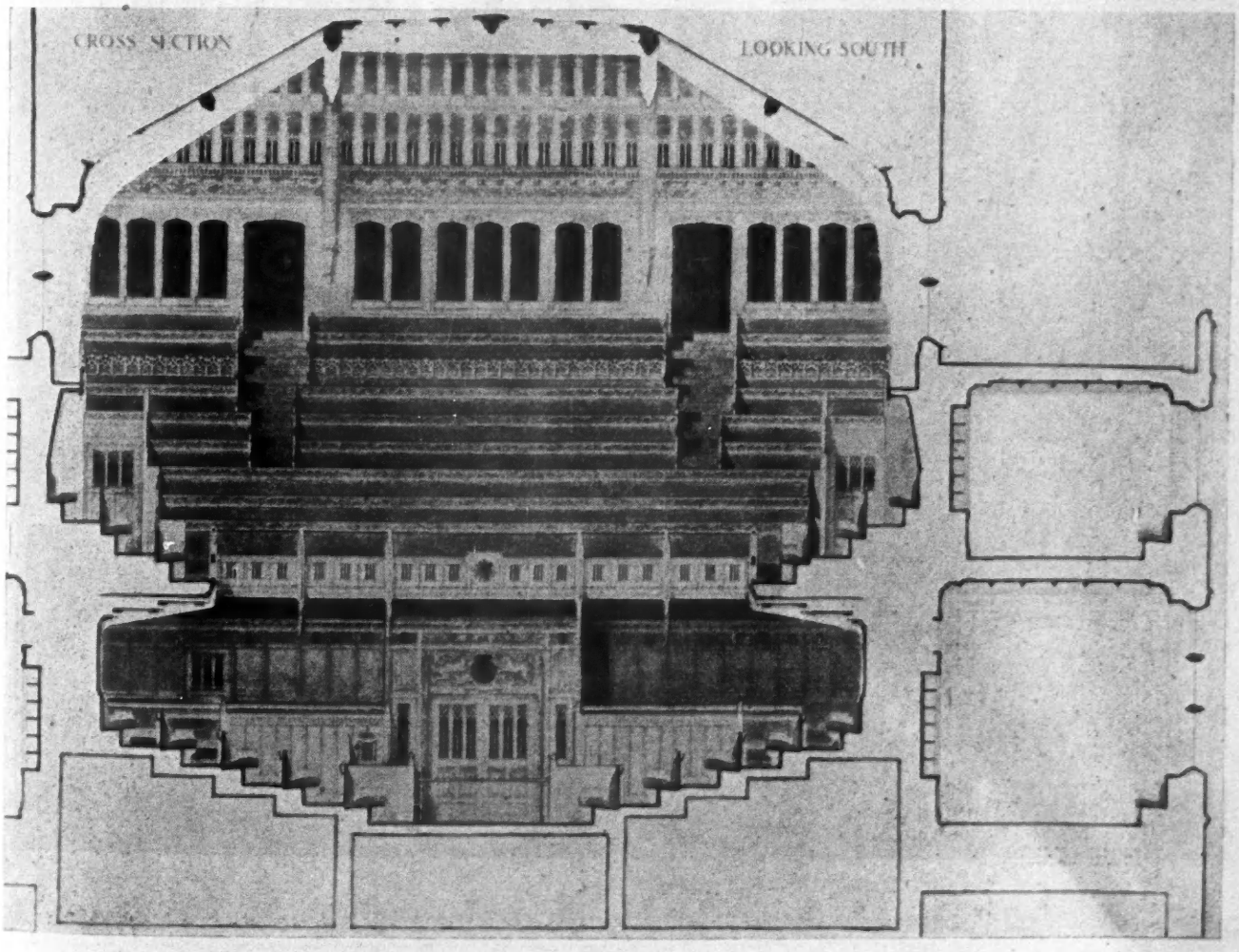
For the internal panelling and joinery 30,000 cubic feet of English oak is being used, the timber being obtained from trees grown within a radius of about 50 miles of Newport, in Shropshire. The oak is now being worked by wood carvers in London. In this craft, too, there is a shortage of trained men, though there seem to be more wood-carvers available than stonemasons.

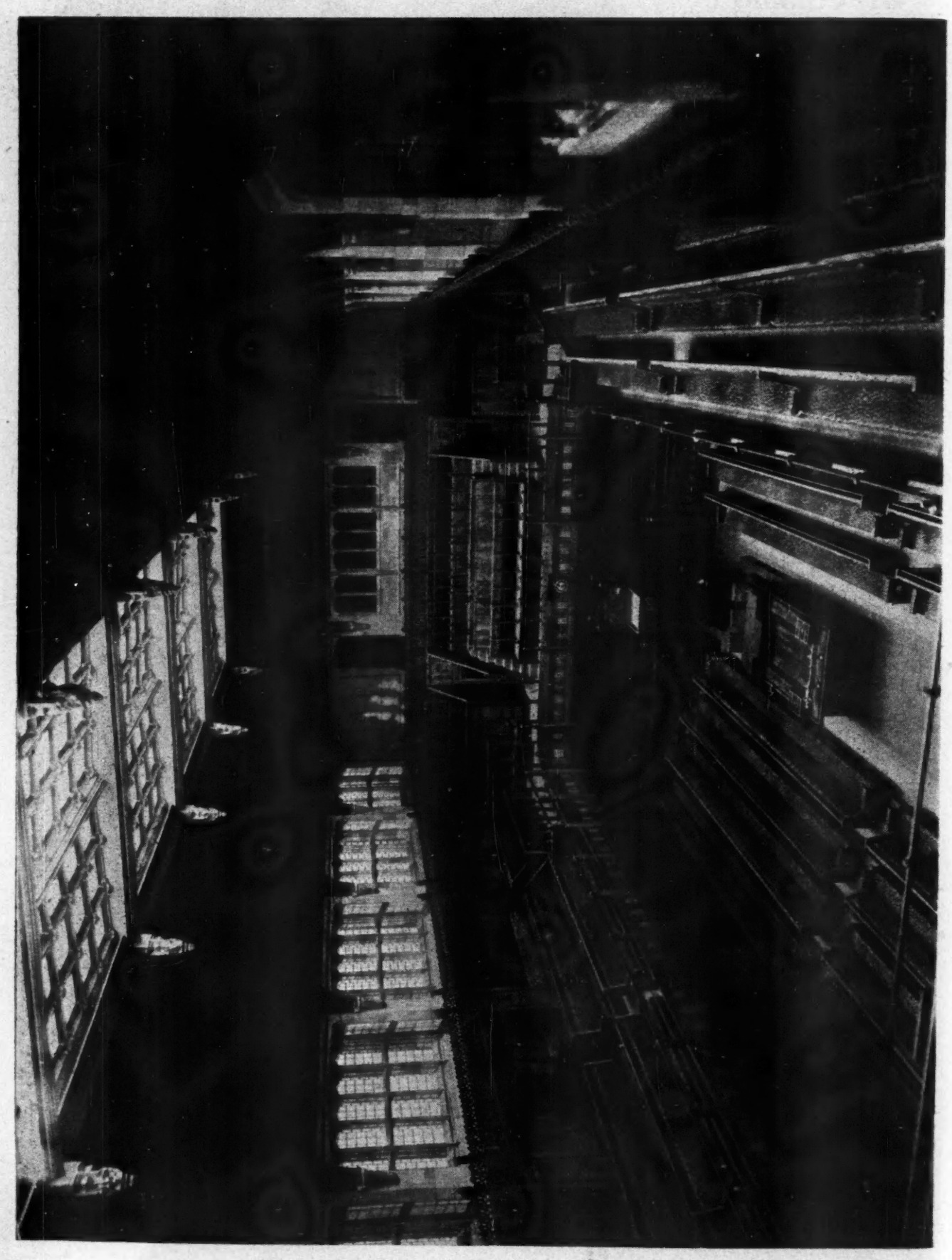
The oak will be bleached a grey colour. The House of Commons table will be made from Canadian oak, and the Dominions are also sending other wood furniture, including the Speaker's chair and the clerks' chairs.

Photograph of completed steelwork (January 12).

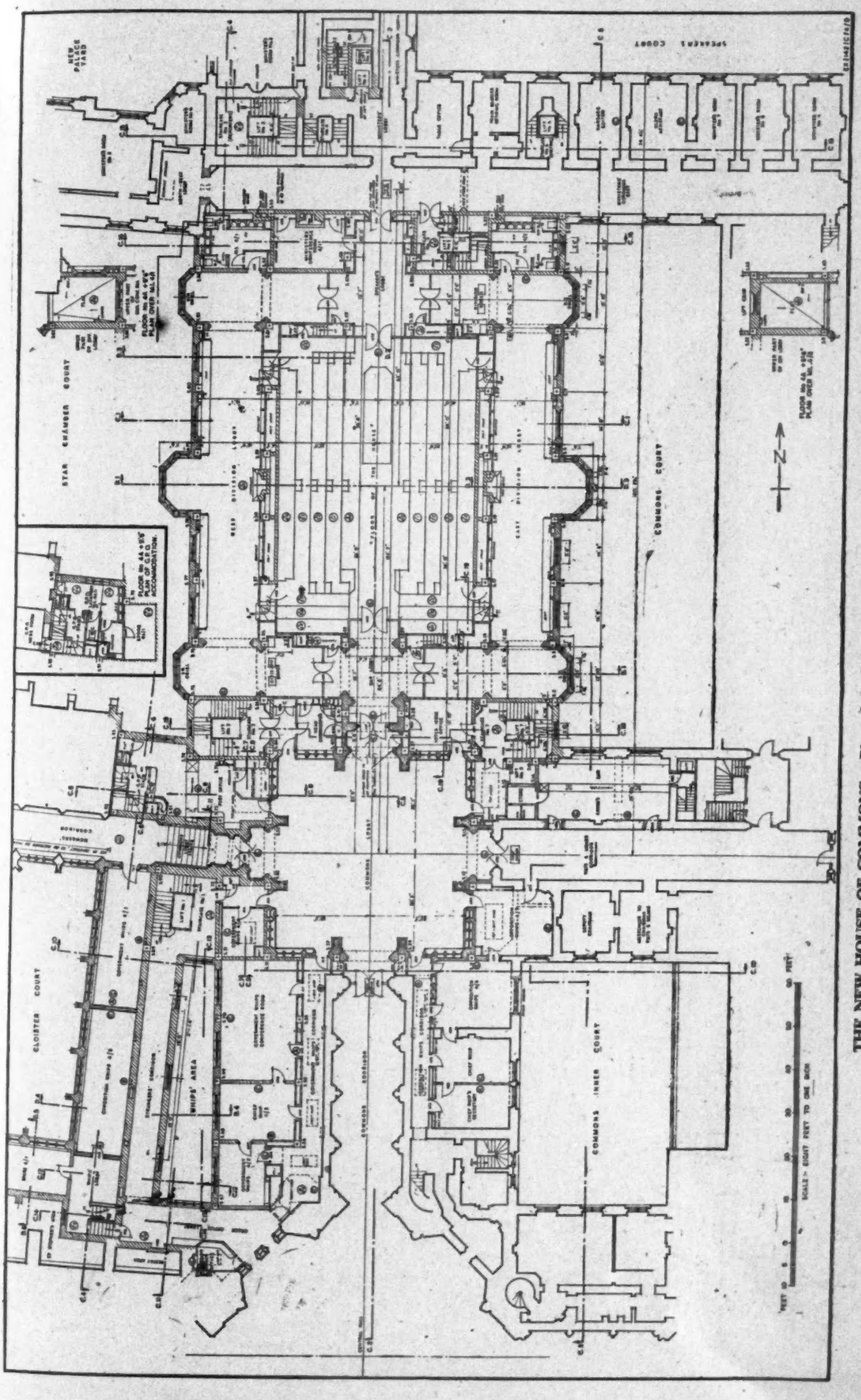
The main contract for the superstructure of the new building was let last April to Messrs. John Mowlem and Co., Ltd., of London, and is due for completion in April, 1950. The structural steelwork is now in place, about 30 per cent. of the work on the reinforced concrete floors (including the casing of steel stanchions and beams in concrete) has been done, and some internal walls are built. All the main contracts are let and the principal materials ordered. At the moment 110 men are working on the site and the largest number that will be employed there at any time will be 350.

From the architectural point of





THE NEW HOUSE OF COMMONS: View of Model of New Lower Chamber, looking towards the Speaker's Chair.

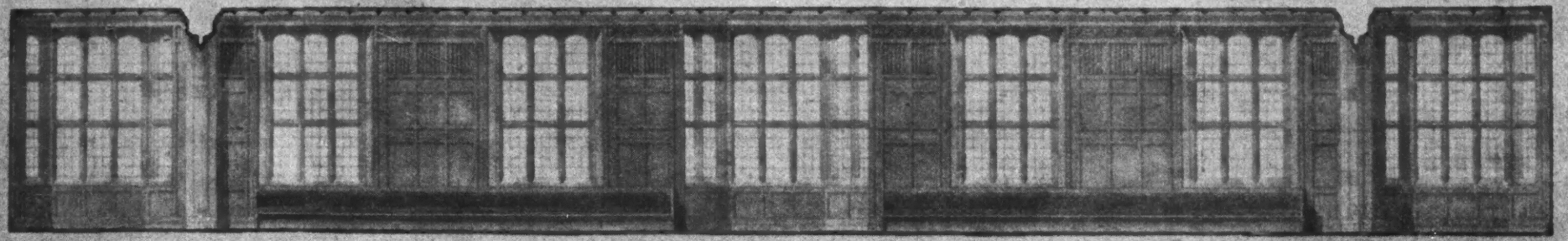


THE NEW HOUSE OF COMMONS: Plan of the Principal Floor (the "Floor of the House").

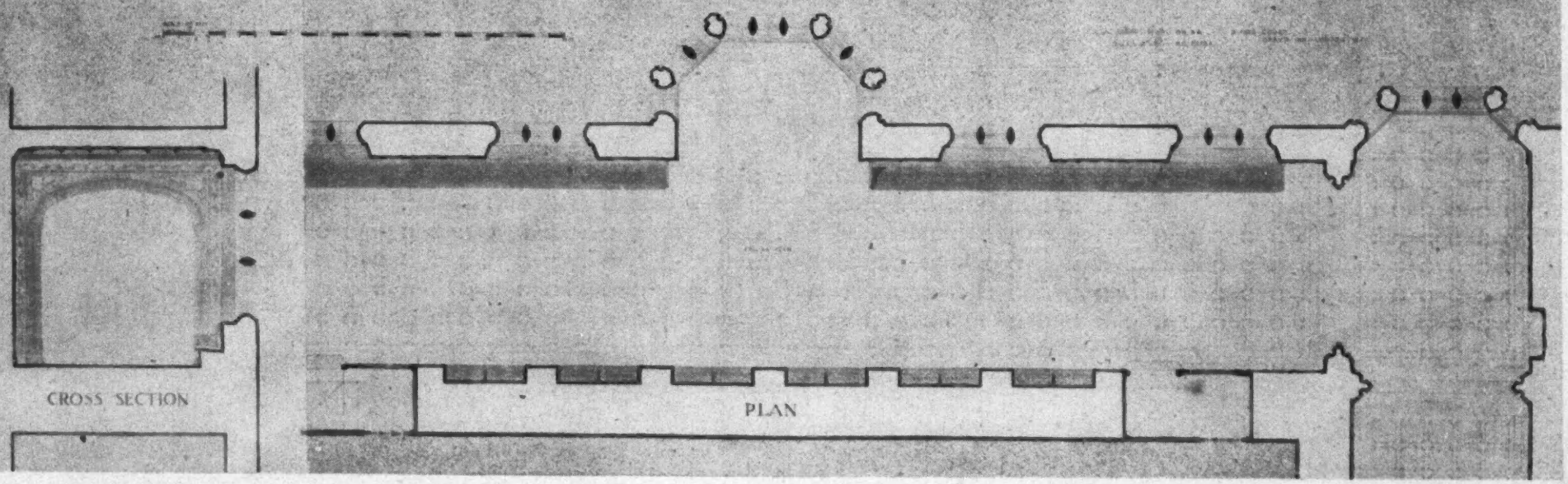
THE NEW HOUSE OF COMMONS: View of Model of New Lower Chamber, looking towards the Speaker's Chair.

HOUSE OF COMMONS REBUILDING

DIVISION LOBBIES



SECTION THROUGH AYE LOBBY LOOKING WEST



view the object has been to blend the new work with the old and preserve a certain unity, but at the same time break away to some extent in the ornamental detail of the interior.

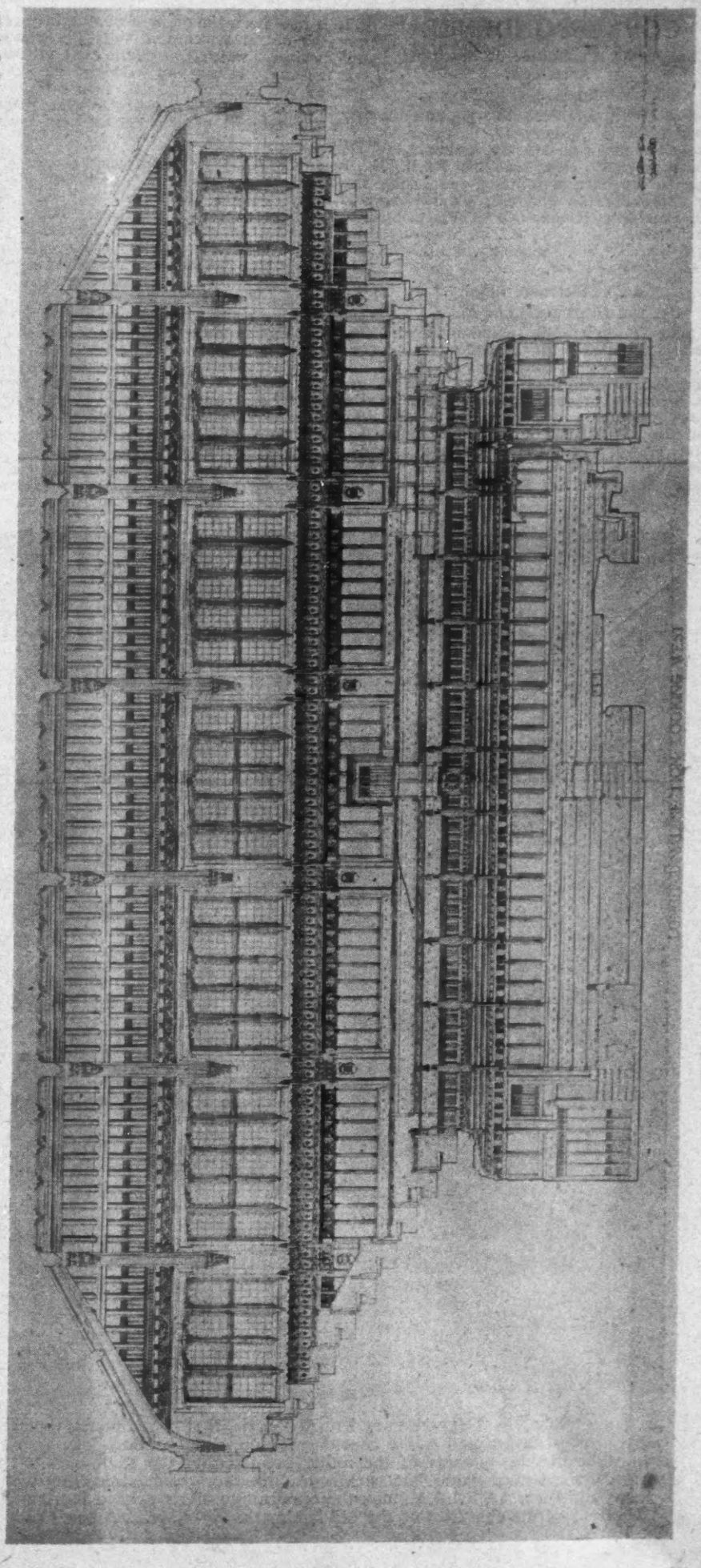
The new Chamber will be almost a replica of the old, except for the galleries at the north and south ends, which will be enlarged. Two new floors below the Chamber will provide rooms for individual Ministers and also secretarial, interviewing, and conference rooms. For the first time there will be offices over the Chamber.

While work on the site and the preparation of the stone and joinery work is going on, the fabrication of ducts, building of motors, fans, compressors, and so forth, are proceeding in many specialist works and factories in various parts of England and Scotland. The whole of the construction under the old House of Commons was occupied by the vast ventilating space, 26 ft. deep. Modern methods make it possible to get all the ducts and machinery for ventilating the new building into 6 ft. of depth under the Chamber, leaving 20 ft. to spare for the two new floors, and another space immediately above the Chamber that will also be used for lighting.

The ventilation and heating arrangements have been in the hands of Dr. Oscar Faber. An elaborate model of the new House, one-quarter full size, was made to his designs by the National Physical Laboratory at Teddington, and was there tested with smoke and electrical instruments to determine the strength and direction of air currents. After minor modifications a full-scale model of one bay of the Chamber, 28 ft. long, was built at Earls Court for further experiments. This model has also similarly been used for preliminary illumination tests, which will be extended to the new Chamber itself when it is built.

The movement of air in the old House of Commons was vertical, but in the new House it will be horizontal. Air will be introduced through slots under the galleries, and the direction of the currents will be variable at will. More air for the occupants of the galleries will be introduced round the perimeter of the roof, and all the air will be extracted near the centre of the roof. In place of the former cotton-wool filters for the air there will be electrostatic filters.

The main problem is that of cooling, since the amount of heat needed to warm the Chamber will be almost negligible. Tubes containing brine from refrigerating machines, situated under one of the courtyards for quietness will cool the air; hot-water tubes will warm it. Should it be necessary, the air can also be humidified in very dry weather. From a small control room just below the level of the Chamber a control engineer will watch the interior through a periscope, thus keeping informed of any material change in the numbers in the House, so that he can adjust the ventilation.



THE NEW HOUSE OF COMMONS: Longitudinal Section looking West.

CORRESPONDENCE

Emergency Committee of Practising Architects.

TO THE EDITOR OF *The Builder*.

SIR,—With reference to the note in your issue of January 16, in order to avoid any misunderstanding, it should be made perfectly clear that the R.I.B.A. has had no part in forming, sponsoring or approving the committee known as the Emergency Committee of Practising Architects.

C. D. SPRAGG.
Secretary, R.I.B.A.

66, Portland-place, W.1.

"An Unfortunate Inquiry."

TO THE EDITOR OF *The Builder*.

SIR,—In the editorial columns of your issue of January 16 you raise various objections to the Questionnaire No. 1 sent out by this Association to some of its members in connection with the inquiry we are making into the building industry. The basis of your objection is that we ask employees to disclose confidential information about the firms for which they work.

It is not the main purpose of our inquiry to obtain evidence of the "grave irregularities" which you admit exist in our industry, but can you seriously suggest, as you seem to do, that such evidence, to be admissible, must be obtained with the consent of the person committing the irregularities?

In any event, your use of such emotionally-charged epithets as "un-English" and "repellent to the British way of life" can only obscure the issue. The A.B.T. believes that it is in the interests of the British people that the efficiency of the building industry and the allocation of the work on which it is to be engaged should be the subject of inquiry, and we are seeking the co-operation of our members in this. The adoption of your suggestion that we should approach contractors themselves for information would, I am afraid, be a waste of time. Contractors as a whole strongly—though not for reasons which we can admit as valid—oppose any inquiry into their work. We shall, however, obtain information direct from the heads of a few firms.

Finally, may I express my surprise that you should feel able to raise at all the question of the disclosure of confidential information, in view of the fact that our Questionnaire, from which you quote verbatim, and of which you have obtained an unauthorised copy, is clearly marked "Private and Confidential."

E. V. PENN,
General Secretary, Association of Building Technicians.

5, Ashley-place, S.W.1.

*** We are prepared to leave our readers to judge whether "emotionally-charged" is the correct epithet to apply to the terms "un-English" and "repellent to the British way of life" in which (in the leading article referred to) we described the Association's action in inviting its members to disclose highly confidential details of their employers' affairs.

The last paragraph of the letter does call for answer. In general terms this newspaper holds itself free to comment upon any action which affects the building industry or the general public. To answer the particular point made, however, the very fact that a copy of the questionnaire came to us as a result of the recipient A.B.T. member voluntarily placing it in the hands of his employer renders the term "Private and Confidential" nugatory. The deduction may also be drawn that at least one member of the Association has had the courage to remember his common duty of loyalty to his employer.—ED.

THE ANGEL, IN DALE-STREET, LIVERPOOL, is the city's oldest tavern and was a coaching station, and in removing the remains of the rather nondescript war-damaged front the architects, Messrs. Stevenson-Jones and Rice, AA.R.I.B.A., took the opportunity of emphasising the character of the old landmark. Plywood panels replace the old vitrolite, and a steel bow window was found and some Jacobean bricks for the stall-board. The title lettering is in baywood, gilded on front with apple-green edges. The window is painted ivory and the cill is lead. The builder was Mr. J. Angus Collin, of Little Sutton.

Shrinking the Industry.

TO THE EDITOR OF *The Builder*.

SIR,—Without wishing to enter into the main argument of the criticism in your last issue of the A.B.T. Questionnaire, might I venture a comment apropos of your editorial remark that there is an obvious case for examination of the Government thesis that the industry must be "shrunk" in the national interest?

We now have the State in the position of the prime employer so far as the building industry is concerned, with the Minister of Health as "boss"; the industry itself assumes the position of "the employed person" and is, as we now observe, held to the threat of unemployment, ostensibly as part of the overall policy directed against inflationary tendencies. Can one not see also, not so obviously yet none the less pointedly, a policy directed towards a particular goal—namely, the reduction of building price levels? Local authority housing no longer appears in your "Contracts for Tender" columns, and there is very little else there to be "choosey" about. Many firms will soon be looking for jobs to follow on their present housing contracts, and when the next limited issue of tenders appears are we not likely to find a reduction in prices tendered on the grounds that work at short prices is better than no work at all?

There has been talk also of a wages policy which the Government is not anxious to sponsor, since there is more than a suggestion that such would not be popular with certain organised sections of the community. The retarding of the building programme will certainly call for the laying off of workpeople, and what can this mean but that the substandard operatives will be squeezed out of the industry (to be directed elsewhere?) whilst the better grade men, the real building trades personnel, will remain employed and provide that necessary leaven by action of which output may in a short while become increased, and the long looked-for new standard set? This would lead inevitably to lower tendering and thence set in motion a movement towards a general lowering of building prices, out of which eventually a wages policy might arrive as a collateral achievement by force of natural economics.

It may be worth waiting on the outcome of this policy, but meantime it is remarkable, and not altogether without ironic entertainment value, that it has fallen to a Socialist Government to devise it for the industry. It has hitherto been the wail of the platform demagogue that "rigged" unemployment was the particular political dastardy of a Tory capitalist system, devised and engineered so that wages might be forced down against the workpeople. Stepped up to higher levels, as in this case, one must suppose that motives are purified!

Looking at the picture dispassionately, however, it is not impossible that, given a guiding hand that is steady enough, and pressure applied without political prejudice, the eventual result might be found to justify the means.

Exeter. STANLEY HOOKWAY.

Modern School Design.

TO THE EDITOR OF *The Builder*.

SIR,—Is it not time that a halt be called to the extravagance and pampering of the modern child, exhibited so lamentably by the designs of schools and papers read about them that are being published so frequently in the technical Press? Why, when the nation is forced to deny itself all luxuries and many necessities, is this waste of public time and money permitted?

It is not only the cost of the buildings and their designs, but there is also the army of technicians investigating, at the nation's expense, such futilities as minor variations in sections of window bars and making complicated calculations and experiments in trivial variations of heating, ventilating and lighting—things that can quite well be settled by rule of thumb, or little more.

When we get a county architect seriously impressing upon a learned society that every classroom in a single-storey primary school must have a main south-east window, clerestory lighting, and a roof north light, surely we have reached a stage at which the Adventures of Alice become commonplaces of normal life?

Those who know the sumptuousness of the central schools built immediately prior to the war, which put many teaching and living-rooms in Eton and Oxford quite in the shade, will be aghast to learn that the floor area per child allowed in such schools is to be increased from 31 to 60 sq. ft. in future! Space prevents my quoting other and similar examples from the vast store at anyone's disposal. A child is not a delicate piece of bric-à-brac; ordinarily it is a healthy young animal. It is not a suitable subject for the faddist to lose himself in a mass of complicated calculations and irrelevant details and at the nation's expense. Nor should it be allowed to become an undue drain on the nation's resources. In any event, the child only spends 25 per cent. of its day, or even less, in the classroom, and that for only about four-fifths of its year.

What about the time it spends on its homework, one-third, perhaps, of its classroom hours? No one works out the lighting or ventilation of a nissen hut or prefab, nor the nervous exhaustion brought on by trying to work in the midst of family life augmented, in many cases, by the wireless. This is a matter that does require attention.

School buildings should be sensibly planned, sensibly lighted, sensibly ventilated and sensibly heated, all of which can be achieved by little or no more calculation and precautions than are required for a modern office or living-room; they certainly do not necessitate a proportion between classroom and corridor of 1½ to one, with its time-wasting, fatiguing journeys for pupils and staff and added expense.

Architects are not primarily responsible for the deplorable state of affairs that has been revealed, but they are certainly accessories, and could, if they liked, do a great deal to stop it.

R. JACKSON.

History of the Registration Council.

TO THE EDITOR OF *The Builder*.

SIR,—The times and leisure appear propitious apparently for the writing of history, and one can but admire the doughty phlegm of the suggestion, proffered without even a redeeming blush, to present the history of the Registration Council.

Compilation and publication cannot be deferred. At the rate matters are proceeding, future recording might unnerve even these hardy folk. Registration by Act of Parliament is supposed to be of value. The word of a registered architect, however, even in one instance, *viz.*, that a building is in serious need of repair, to-day counts for nothing in the search for a licence. This privilege is now bestowed on the sanitary inspectors who can issue an order to justify.

Passing through North London recently to determine whether this worthy individual could be called upon to reinforce my opinion qualified by registration under the Act, I saw a resplendent board on the front of a building advertising a firm of estate and house agents, valuers and architectural designers!! Looking up at the window, did I see someone cocking a snook, or was it my fancy?

However, I have not the slightest desire to steal the thunder of the historian. The production, setting forth the purest form of democratic representation and control, graced, let it be hoped, by the cleansing delineations of Osbert Lancaster, may do much to wean many of us away from over morbid contemplation of the waters of Marah. Indeed, many of us would laugh aloud, let alone smile. Let the good work therefore proceed.

N. MARTIN-KAYE.

43, Doughty-street, W.C.1.

Lethaby on the Third Programme.

TO THE EDITOR OF *The Builder*.

SIR,—While I am grateful for your comment (*The Builder*, January 9) on my talk on W. R. Lethaby, I feel that it gives a false impression as to my views on the value of classical studies in architectural education.

May I make it clear that I am in agreement with the author of the comment in believing that a thorough understanding of the classical tradition is one of the essential foundations of architectural design. I also agree with him that, *provided it is really understood*, a study of the Classic will not prevent the student from exercising his talent in other fields and will increase his chances of becoming a good contemporary architect.

In my talk I did not intend to criticise the *Beaux Arts* method; my complaint is that the method has not been well taught or sufficiently understood and that its logic has not been consistently applied to contemporary problems. I and my fellow students suffered not from the system but from the habit of imitating superficially the *appearance* of French drawings, and from the thoughtless application of *motifs* the meanings of which had been forgotten.

I believe that one of the reasons for the misunderstanding of the Classic may be that it has been taught too early in the course, and I would prefer to see the student start with a study of ordinary contemporary practice ("the vernacular" as A. J. Penty called it). The subtleties of classical design should only be tackled at a more mature stage. In this I seem to be at variance with your contributor, who suggests spending three years on the Classic before the latest developments are taught.

At present, of course, we are again in danger, and this time our temptation is to try to ape the appearance of the "New Style" without first considering the fundamentals of good building: hence my plea that we should learn from Lethaby to think for ourselves and build for ourselves, in our own way, with our own materials, to suit our own peculiar climate.

JOHN BRANDON-JONES.

Members' Room,
Architectural Association, W.C.1.

Appeals in Town Planning.

TO THE EDITOR OF *The Builder*.

SIR,—Restrictions upon overbuilding in the post-war rebuilding of central urban areas may be compiled and worded with the utmost care, but various anomalies and injustices are certain to arise when they are applied, as they must be, to localities which are already

more or less closely built up on unplanned lines.

Practical town planning essentially entails the putting of new wine into old bottles and the potentialities of trouble are many and varied.

The injustice of a town planning anomaly may be tyrannical and very material, or it may be quite trivial or even imaginary. Every case requires to be tested on its merits, and there is an obvious need for facilities for appeal which shall be at once simple, easy and above all inexpensive. They already exist, but it is not, I think, so well known as it might be amongst architects that reasoned appeals to the Ministry against decisions by local town planning committees frequently result in a public or semi-public inquiry, which offers many of the advantages of a highly expensive action at law at little or no cost.

It has been my lot to have been called upon to give evidence at such inquiries and on each occasion the method of conducting them has left a deep impression. The proceedings have invariably been business-like and brief, but dignified and very thorough. Whether solicitors or counsel were present or not, everyone concerned has evinced that solicitude for close and thorough investigation, combined with most scrupulous fairness which always characterises proceedings in the High Court. Appellants, even if they be garrulous working-class appellants, have been heard with patience and courtesy, given every facility to develop their complaints, and invited to cross-examine evidence, whilst professional witnesses or representatives have nothing to complain of. Judgments are necessarily reserved because the presiding Ministry Official nominally only advises the Minister, but they generally follow by post in a few days. Costs are not allocated for the very excellent reason that there usually are none.

Such facilities for appeal are eminently adapted to relieve hard cases in the administration of restrictions on urban overbuilding, and litigiously minded clients would be well advised to take advantage of them.

PERCY J. WALDRAM.
113, Whitchurch-gardens,
Edgware, Middlesex.

"Notes on Concrete Houses."

TO THE EDITOR OF *The Builder*.

SIR,—I should like to refer to the article on this subject in your issue dated January 9, in which mention is made of the use of reinforced concrete floors and roofs in house construction. It is stated that "A high dead-load is a great disadvantage in an ordinary reinforced concrete floor or roof, and if prestressed concrete beams, perhaps of tubular cross-section, can be used to reduce the dead-load one of the objections to concrete floors and roofs will be removed."

The inference is that reinforced concrete floors as at present designed are unsuited, because of their dead weight, to use in house construction. This view must be challenged, as there are many types of reinforced concrete floors now on the market which incorporate in their design the principles of maximum strength and minimum dead-weight, being of a hollow cross section, and are in every way suitable for use as suspended floors or flat roofs of houses.

In any case, the question of dead-weight has very little bearing on the problem, as the difference in weight between a concrete floor and, say, a wood floor could make no appreciable difference to the design of the supporting walls or framework. The principle of prestressing which is referred to in the article is by no means proved, as applied to short-span floors, either in this country or in the United States.

It is also stated that "Another means of reducing the dead-load of concrete floors and roofs is the use of lightweight concrete with a density of little more than half of that of ordinary concrete. Foamed slab is one of the newer lightweight aggregates that is being extensively used for this purpose."

This, it is suggested, is liable to be misleading, as it is not possible to use lightweight concrete for structural purposes and at the same time obtain equivalent strength results as with normal reinforced concrete.

A. E. BOND,
Secretary, Association of
Constructional Floor Specialists.
Victory House, W.C.2.

[The author makes the following comments: "It is meaningless to say that reinforced concrete beams now on the market incorporate in their design the principles of maximum strength and minimum dead weight. Maximum means greatest and minimum means least and, unless we are to deny all new ideas and progress, things made to-day will not always have the most advantages and the least defects. Prestressed concrete beams may also be of hollow section. Whether or not a new method has been proved is a matter of opinion. Your correspondent says that the principle of prestressing short-span beams has not been proved here or in the U.S.A.; in the writer's opinion it has been proved for spans up to more than a hundred feet on the Continent. As to the use of foamed slag aggregate to reduce the weight of concrete floors and roofs, your correspondent is referred to many hundreds of houses recently built in which foamed-slag slabs spanning between beams have been used for floors. Your correspondent would have been on surer ground if he had pointed out that at present prestressed concrete beams are dearer than ordinary reinforced concrete beams."]

The Status of Builders' Foremen.

TO THE EDITOR OF *The Builder*.

SIR,—I am interested in Mr. Tolley's letter (*The Builder*, January 9). I venture to suggest that a clearer viewpoint is wanted. In my experience, where jobs are run by reputable firms, the agent is the representative employed on contracts of a civil engineering or public works nature; the agent, so far as my knowledge goes, is one who is given more power than a general foreman, whose job is looked upon by the firms as being self-contained. The agent is of necessity a person with very general knowledge; by that I mean that the duties are clerical as well as practical. On contracts of this sort the agent employs foremen of trades, and in the main his responsibility is as great as that of the contractor he represents.

With reference to the general foreman, he is usually one who is employed on a building contract, often one that does not involve civil engineering. He is responsible for the contract, but his work does not entail so much of the headquarters clerical work.

I do not think there is much point in the complaint that notices for general foremen appear in your advertisement columns after those for the clerical staff; a contractor is not likely to engage a buyer to do a general foreman's duty. I know of several associations which have over many years improved the status of builders' foremen. Although clerks of works are in some cases members of these associations, I venture to suggest that numerically they are in the minority. I have no knowledge of agent members of these associations, and here I refer to one founded in 1842 and another founded in 1894. My impression is that the majority of clerks of works have their own associations and have been for many years improving their status; or at least trying hard to do so.

G. W. H.

AIRPORT DESIGN

SOME GENERAL CONSIDERATIONS

THE various factors to be considered in the design of airports of the international class were outlined in a paper on "Airport Design," read by Mr. R. F. LLOYD JONES, M.A., M.I.C.E., A.F.R.Ae.S., at a meeting of the Birmingham and Five Counties Architectural Association, 8, Newhall-st., Birmingham, on January 9.

Following is a summary of the paper:—

Before an airport can be selected or the design started, the designer must obtain preliminary information as to the amount and nature of the traffic using the airport and he must have as complete information as possible of the meteorological conditions applicable to that area. Consideration must also be given to the existing flying routes and control organisation and also whether there is likely to be any confusion with neighbouring airports.

The landing ground consists of a number of landing strips arranged so that aircraft may always land and take off approximately into wind. Normally the aircraft land or take off on a prepared runway placed centrally on the landing strip. The approaches at either end of the strip must be clear of obstruction below certain limiting heights, and elsewhere the surrounding country must be free from circuit obstructions.

The taxiways leading from the runway to the loading bays must be as short and direct as possible and their arrangement must avoid complicated junctions which are liable to cause confusion at night or in bad visibility and complicate the lighting and ground control system.

The general standards to which the runways, approaches and taxiways are to conform will shortly be recommended by the International Civil Air Organisation. This standardisation is essential in order that there shall be uniformity between airports of one country and another.

The layout of the runways of a single runway system is comparatively simple and is determined principally by the physical features of the site and surrounding country, but must also permit a satisfactory arrangement of taxiways and allow the buildings and loading bays to be sited conveniently with respect both to the landing ground and the road approaches to the airport. Multi-runway systems, however, are more complicated and various additional factors have to be considered.

Loading Bays.

The number and size of loading bays will depend upon the rate of movement at peak periods and the length of time each aircraft occupies a loading bay. The number of bays must, however, exceed that theoretically required since for practical and economic reasons they are not all interchangeable and some margin must also be allowed for any abnormal condition such as exceptionally bad weather. In any case, a parking area reasonably close to the loading bays is very desirable. Facilities must be provided at each bay for servicing the aircraft.

At major airports the loading bays will occupy a large area and their arrangement, together with the buildings through which the passengers pass, must be carefully considered if the distance passengers have to walk is to be kept within acceptable limits. The buildings may be centralised and the passengers conveyed to the aircraft by special vehicles; they

may be decentralised so that the passengers arriving at the airport go directly to that part of it adjacent to the bay in which their aircraft is to load; or two or more unit buildings may be provided, each big enough to contain economically the passenger-handling facilities, but small enough not to involve long distances between the building and the loading bays. The bays themselves may be arranged along a coast line or in clusters.

The passenger facilities in the building must allow incoming and outgoing passengers to be kept separate. They and their baggage must pass through the various formalities with the least confusion. Travellers from abroad and transit passengers must be kept separate from internal passengers until they have cleared Customs.

In siting the buildings adequate space must be left for car parks, and the number of bays for cars and coaches where passengers load and unload into the vehicles to take them to the town must be reasonably generous.

Certain technical problems are of interest, many of which are still awaiting the best solution. With the arrangement of aviation lighting and radio-assisted approach equipment it is very desirable to have a reasonably level area extending beyond the end of the instrument landing strips. A final solution has yet to be found for the ground control of aircraft on the taxiways but, whatever the outcome, the installation is likely to be elaborate. The tarmac equipment used for loading and servicing aircraft is still subject to development and no economic solution has been put forward for providing covered ways up to the aircraft.

The ancillary accommodation required at major airports is extensive, and the concessions such as shops, cinemas, hotels, are of importance as being a valuable source of revenue.

Finally, it is emphasised that the design should be based on a master scheme permitting an orderly development but flexible enough to allow it to be adapted to any changes that cannot at present be accurately foreseen.

Single-storey House, Los Angeles.

HOUSING PROGRESS IN U.S.A.

CHALLENGE TO OUR BUILDERS

"THIS nation needs housing—good housing. The building industry can provide it. Time and time again members of the public and of both Houses of Parliament speak on its behalf, yet as a member of the public I would say that from the industry we hear nothing. We see so little of its activities and plans."

With these words MRS. M. PLEYDELL BOUVERIE, recently returned from a visit to the United States, concluded her address to the Building Industries Luncheon Club at the Park-lane Hotel, London, recently. She had described in some detail the housing efforts being made in America and had compared the progress made there in the last two years with the situation in this country. MR. S. GRAHAME ROSS was in the chair.

We take the following extracts from the speaker's earlier remarks.

The National Association of Home Builders of the United States co-ordinates all building industry interests—finance, production of materials and appliances, distribution, brokerage, community planning and labour. The policy of the Association does not overlap any of the domestic policies of the individual industries, but supplies a central meeting ground and channel of action when and where needed.

The Association was formed in 1941 and contact between the Association and Government departments had been maintained throughout, and some of the controls which were hampering the builders had been relinquished, but it was not until the Association had brought indisputable evidence to bear before the Finance Section of the Senate that most controls were finally lifted in May of 1947. The evidence presented by the Association showed clearly that State house-building on a big scale and to the exclusion of all other is expensive, slow, undesirable in a free country and would have disastrous effects not only in the increased burden of rates and taxes which the people would have to pay but also in the loss of revenue in taxes, and in unemployment.

What has been the result of the loosening of controls? Freed of forms, directives, expeditors and the control of regional controllers, the building time of a house has been reduced from twelve to three months. In the first seven months of 1946 under government control and great difficulties, 165,300 houses were built. Since controls were released 428,700 houses were built in the same period. The official figures to the end of August showed that 524,100 houses had been started and 499,000 houses completed in eight months, compared with 340,100 houses started and 128,600 completed in twelve months in 1946 during the control period.

Instead of the Federal Departments controlling the industry, they now work with them. In consultation with representatives of what has now become the State Housing and Home Finance Agency, I was informed that their aim is to improve the technique of building and to assist research and development rather than to control rigidly actual building.

When I left, discussions on the demarcation line between slum clearance and housing for those who cannot pay economic rents—which are two entirely different problems—were proceeding.

At the present time building of houses in the United States is, in the main, voluntarily restricted by the industry to those suitable to the married ex-Serviceman

Living-room Interior, House in San Francisco.

with children. The price of those houses is around £2,000 (and you must remember that the operatives are paid about three times as much as they are here) and the target was a million houses in 1947—some for rent and some for sale. If we were building at the same rate we should build some 300,000 houses per year.

Most of these houses are 1,250 super feet—well planned, well fitted, well finished and equipped. Most of them are detached. Many in the city limits are built as apartments, but all are of a higher standard than ours. As you know, their methods of construction are very different from ours. Under a further clause in the Federal Housing Laws, builders are now being encouraged to provide accommodation for newly weds and single people. These dwellings will measure approximately 360 super feet and will have three rooms and will sell for around £750, with arrangements for loans and guarantees.

Meantime, the industry is working to reduce costs for low income group housing by co-ordinating standards and securing better distribution of building products through application of modern methods—better packaging, precutting and pre-assembly at local dealer level.

It is estimated that not less than eleven years at full employment will be needed to bring housing up to date in the United States, and this should do much—once the operative is convinced that there actually is that amount of work ahead—to improve man-hour output on the site and to eliminate "feather-bedding" and other go-slow tactics.

Revolutionary Methods Needed.

What I saw in the United States convinced me that if we are to be a well-housed nation we must revolutionise our thinking towards design, space and its use, and equipment. I am also almost convinced that we must admit much more prefabrication and mechanisation, but that we should not slavishly follow the results of experiments already made. I query, too, whether we are right in building so heavily and sturdily, and whether it is desirable that houses should last 60 or 100 years.

May I be frank? The industry still lacks co-operation and co-ordination. The recent link-up of the National Federation of Building Trades Employers and the Federation of Registered House-Builders should be an encouraging sign. What is its programme? All we are told in the Press is that the President of the Federation has written to the members to say "We hope, indeed, for a considerable accession of membership as soon as political and economic conditions, at the moment so heavily weighted against private enterprise house-building, begin to change." Is that an indication of virility? Particularly do I ask this as in the same week Mr. Herbert Morrison, speaking at Barnsley, said that the Government are still considering whether the building industry is to be nationalised, "but no decision has been reached on this point yet." It would be, he said, a matter for the Labour Party Executive, and, no doubt, for the Labour Party Conference as a point of policy for the next election.

Again, we learn that the Treasury instructs the Ministry of Health to cut their housing programme by several million in the year ahead. The operatives' union believed that this would mean unemployment of 85,000 men and the unbalancing of the industry. Quite recently we read that the £20,000,000 cut in housing had been restored.

Alice in Wonderland has nothing on what is happening in and to the building industry.

What, I ask myself, is going to happen if the economics of this vast Government housing plan break down? Who is going to build our houses then?

I believe that an industry which has grown to such magnificent stature as the building industry of Britain can still do the whole job of building if given, or if it will assume, the full responsibility, if the needs are clear, if men of good will and integrity are appointed to leadership and guidance only is given from the Government.

THE SURROUNDINGS OF MANCHESTER

AN ADVISORY PLAN

THE Manchester and District Joint Town Planning Advisory Committee held its first meeting on January 14, 1921, and formed a constitution which distributed the work among a series of local authority groups. They reported in 1926 recommending statutory planning by committees representing in the main the same groups. It was laid down that the chief objective was to facilitate the progressive development of every part of this important region so that the most might be made of its vast resources, the enterprise of its citizens, and to bring about the best possible conditions of life. Subsequently the regional scheme was proceeded with.

This Committee continued to function until January, 1943, when arrangements were made for reciprocal affiliation with the Cheshire planning committees in the Advisory Area, and in preparation for the imminent post-war expansion of the Committee's work: it was renamed "The South Lancashire and North Cheshire Advisory Planning Committee." The area of land under its guidance is defined as including the watershed of the Rivers Mersey and Irwell as far as the Vyrnwy Aqueduct to the west, and such adjacent areas as the Committee may consider it desirable to include by reason of community of interest. These extend southward into Cheshire to within a couple of miles from Crewe, and take in small fractions from Derbyshire and from the West Riding of Yorkshire.

This region has a total area of 730,565 acres, an estimated population of 3,243,046 and a rateable value of £21,482,109. Very full tables are given showing the distribution of these figures in relation to the various districts into which the region is divided and the probable increase or decrease in the population based on the statistics of the last 30 years. Rather more than half the total area is in Lancashire; but this carries over four-fifths of the population owing to the concentration of industries located here: even taking the region as a whole, the density of occupation is far above the general average, but a large proportion in the Cheshire division is good agricultural land, which it is important to preserve as such.

The extent of the public services in the region is exceptional: a series of maps shows that water supplies extend over the whole area except the hill-tops to the east and north, electricity is almost as generally available, and gas throughout all the more densely populated districts. The question of sewerage is more complex: the multiplicity of sewage-disposal works and the relative inefficiency of some of the smaller ones indicate the need for joint action, and moves in this direction are contemplated. Some of the rivers suffer from polluted effluents, which demand to be dealt with, though in such a manner as not materially to diminish the flow of water. The social services are, in such a populous area, numerous and varied; they are discussed in this report, and the density and other calculations upon which the outline scheme is based include an allowance for them. The special requirements are discussed, and it is recommended that the provision for houses, schools, shops, community and health centres, open spaces, and so on, should be considered as a whole.

This area includes the largest urban concentration in the industrial North. Upon the future of its industries depends the very existence of the people who live in this historic home of so large a part of the country's textile and engineering trades, coal resources and associated manufactures. The future trends and needs of industry have to be closely studied before final plans for land development and redevelopment are formulated. Of the industries based on the natural resources of the area, coalmining is by far the most important. A map shows the extent of the coalfield, the worked-out areas, those under which mining is in progress, and the parts unexploited. In planning the surface use of land it is of first importance to know the probable effect of underground workings, and the map shows where subsidence may be anticipated. This difficulty also arises in the case of the Cheshire saltfield to the south, where brine-pumping is in progress.

Restoration of Land.

There are various surface workings of minerals for brickworks quarrying and for sand and gravel, as well as the war-time measures for open-cast coalmining; in this and other cases it is urged that the measures employed should enable the land to be satisfactorily restored for appropriate purposes such as farming or as public open space; this has been successfully done in some cases.

Textiles rank first among the manufacturing industries. The planning problems arising out of reorganising and co-ordinating the cotton trade have been discussed with a liaison committee set up by the Lancashire Chambers of Commerce. Climate, sea transport from America and a convenient coal supply originally led to the establishment of the cotton industry in Lancashire. It developed as spreading areas of closely packed workers' houses and clusters of mills beside the canals, main roads or railways. It is considered that the old multi-storeyed mills might give place to modern ones of a single storey, and that conditions generally should gradually be brought to conform to those of the newer light industrial estates. In most of the cotton towns there is an inner area in which a close-packed medley of mills, houses, shops and commercial buildings calls for a substantial degree of de-congestion. Estimates of obsolescence, in terms of the condition and character of the structure and plant, have led to the conclusion that any general standard for this is out of the question. Various cases would have to be considered from their economic and other aspects.

The allied trades of bleaching, dyeing and printing (together with papermaking) differ from the rest of the textile industry in that their location is governed by an essential element in their special processes—water. Their premises cannot therefore, as a rule, be relocated, though it is essential to take steps to improve them and their surroundings. The exist-

ence of water rights and the risk of chemical pollution present difficulties in the redevelopment of adjacent areas for housing and other purposes, entailing very intricate studies on the part of the planning authorities and demanding specific remedies in order to devise measures securing adequate health and amenities for the neighbourhood.

With the exception of a south-north main road through Warrington and Wigan, all the principal routes in the area centre on Manchester, and there is great traffic congestion in and around this city. This has been dealt with in the Manchester and District Report, and the plan for it is included there,* showing inner and outer ring roads around Manchester and Salford. In addition to these there are important by-pass arterial roads north, east and west of Manchester at a distance of some four or five miles from the city centre. Bolton and Wigan are also provided with ring routes, and a relief arterial road is planned to take through traffic past Warrington and Wigan. An analysis of traffic is given as a basis for road planning, and attention is drawn to the variation in treatment suited to roads in open country and those in built-up areas. The leading railway revisions have already been dealt with in the Manchester plan—the main recommendation here is for a general electrification of suburban lines. The numerous canals and aerodromes in the region are also reviewed.

In addition to requiring the standard provision for parks, playing fields, etc., the report points out that it is of especial importance, in this area, where the centres of population lie so closely together, with such a tendency to coalesce, to reserve open green strips between them, removing some of the buildings in such positions when they become obsolete; these strips can provide parkways and can accommodate playing fields or parks. Particulars are given of the methods by which derelict ground, such as pit-heaps, brickfields and gravel pits, can be brought into harmony with the surrounding landscape. Apart from some important parks on the lower areas, there is an extensive stretch of hill country on the north and east borders of the region, which has the lowest agricultural classification but has striking view points and is of marked scenic value. This includes part of the Peak District in Derbyshire and the western fringe of the Yorkshire moors. It is comparatively near the populated districts and is inevitably the natural outlet for rural excursions and for "hikers."

Other sections of the report deal with matters such as the control of the smoke nuisance, of advertisements, and with other aspects affecting health and amenity. A series of Appendices and very clear maps, together with photographic and other illustrations, help to clarify the proposals and the conclusions which make an important contribution to the work of the town planner. H. V. L.

An Appointment.

MR. R. M. WATSON YOUNG, A.R.I.B.A., chief assistant architect in the Darlington Borough Architect's Department, has been appointed Senior Architect by the Department of Health for Scotland.

* South Lancashire and North Cheshire Advisory Planning Committee. "An Advisory Plan." Prepared by R. Nicholas, C.B.E., B.Sc., M.I.C.E., M.T.P.I., Hon. Surveyor to the Committee, and M. J. Hillier, M.T.P.I., A.M.I.Mun.E., in collaboration with the members of the Technical Committee. Published by Richard Bates, Ltd., Stockton-street, Manchester, 15. Cloth, foolscap.

HATFIELD AND WELWYN

DEVELOPMENT PLANS

THE reasons for the proposed development of Hatfield and Welwyn Garden City under the New Towns Act, 1946, are outlined in an explanatory memorandum issued by the Ministry of Town and Country Planning. As is stated in this pamphlet, drafts of the two Orders have been made public, and maps showing the areas proposed to be designated can be seen at the Hatfield R.D.C. Offices, 16, St. Albans-road, Hatfield; at the Welwyn Garden City U.D.C. Offices, The Campus, Welwyn Garden City, and at the Ministry of Town and Country Planning, 32, St. James's-square, London, S.W.1.

The area of land defined in the draft Hatfield Order comprises approximately 2,340 acres in Hatfield Rural District and Welwyn Garden City Urban District, while that in the draft Welwyn Order comprises approximately 4,260 acres in Welwyn Garden City Urban District, Hatfield Rural District, Hertford Rural District and Welwyn Rural District.

There is already general agreement that both Hatfield and Welwyn Garden City should be substantially expanded. In 1940 the Royal Commission on the Distribution of Industrial Population reported that the excessive concentration of population and industry in the London area represented a serious drain on the rest of the country. Accordingly, in 1942, the then Minister of Works and Buildings appointed Professor Patrick Abercrombie to prepare an Outline Plan and Report for Greater London. He proposed that Hatfield should receive, under decentralisation plans, some 12,250 additional people, increasing the total population of the town to 22,000 and that Welwyn Garden City should receive some 26,500, increasing its total to 40,000.

In November, 1945, an Advisory Committee for London Regional Planning, representing the County Councils and Joint Planning Committees in the Region, under the independent chairmanship of Mr. Clement Davies, K.C., M.P., was appointed to co-ordinate the examination of the Greater London Plan. In July, 1946, it presented a report to the Minister which broadly endorsed the Abercrombie Plan, though some modifications were proposed. In regard to Welwyn Garden City it was recommended that the ultimate population should be only 36,500, instead of 40,000 as proposed. However, the Committee considered that Hatfield could accommodate 3,000 persons more than the Plan proposed, and, therefore, recommended for it an ultimate population of 25,000.

In addition, the Welwyn Garden City U.D.C. and the Welwyn Garden City Company advanced independent proposals envisaging an ultimate population of 50,000 for their town. Having fully considered the points made, the Minister announced on January 31, 1947, that the Advisory Committee figure of 36,500 was more appropriate, and that plans should be made on the assumption that the population should not materially exceed 36,500 persons. Later in the year he announced his acceptance of the Advisory Committee's recommendation of an ultimate population of 25,000 for Hatfield.

Thus it will be seen that for more than three years past the substantial expansion of these two areas has been under discussion and has been generally accepted. After long deliberation and consultation with all the local authorities concerned, the Minister has formed a provisional opinion that these desired expansions would best be carried through by recourse to the procedure laid down in the New Towns Act. It is stated that if he ultimately decided to make the Orders the planning and development of the proposed New Towns would be undertaken by Development Corporations, which he would appoint. Such Corporations would have full regard to the views and wishes of the people now living in the district.

The memorandum explains that anybody who wishes to object to the Orders should do so before February 7. A report made of subsequent inquiries would be considered by the Minister before he decided whether or not to make the Orders. It is also explained that although little development can be expected in the next two or three years, it is necessary that all plans should be completed, and at least some start made on the provision of essential services, in readiness for the big drive when it comes.

FIFE NEW TOWN

EXPLANATORY MEMORANDUM

REASONS for the proposed development of a new town on land between the burghs of Leslie and Markinch, in Fife, and the considerations which influenced the selection of the site which is specified in the Draft New Town (Glenrothes) Designation Order, 1948, are explained in a recently published Memorandum on the draft Order by the Rt. Hon. Arthur Woodburn, M.P., Secretary of State for Scotland. The Memorandum deals with the future of the East Fife coalfield area and the effect of the development of the proposed new town on agriculture.

In East Fife the aim is to increase the annual output of coal within the next twenty years from two million tons to about six and a half million tons. This will mean a doubling of the present mining population, and, the memorandum states, few of the existing communities could be expanded to take substantial additional number of miners. Some extension of Kirkcaldy is possible, and Fife County Council propose to develop into a larger mixed community the village of Kennoway; by these means, the Secretary of State considers, it may be possible to provide accommodation for about 3,000 additional miners. Accommodation for the balance of about 3,500 will have to be provided by the development of a new mixed community.

Considerable difficulties were experienced in finding a suitable site, which had to be north of the coalfield. The Secretary of State therefore provisionally selected a site lying between the burghs of Leslie and Markinch of sufficient size to enable housing, industry, open space and other facilities to be provided on modern standards for a population of about 30,000, with a surrounding area of green belt.

"The Secretary of State," says the memorandum, "is fully conscious that this would be a serious loss of agricultural land. In the green belt area of the new town the land will continue in agricultural use, and the inclusion of the green belt will enable the development corporation, in cases where the built-up area of the new town encroaches heavily on individual farms, to adjust farm boundaries so as to ensure the most effective use of the land left available."

Copies of the Memorandum may be obtained from H.M. Stationery Office, 13a, Castle-street, Edinburgh (price 6d.).

PRICE BUILD-UP TO-DAY—7

By "Cain"

HERE follow further extracts from an analysis compiled by the writer, based on data given in earlier articles. The final rates shown are the net cost on site; a percentage addition must be added to cover site supervision, establishment charges and profit. Should greater accuracy be required in determining the final rate, this may be obtained by calculating to a further number of decimal places. The labour involved in unloading materials is included in the labour constants given.

The Standard Method of Measurement for sheet lead work groups a number of items under one heading. The estimator, knowing that the labour involved differs with each item, must therefore determine an average output per cwt. to cover all items so grouped. To assist in that object a number of the items are here given separately.

Rates for "Excavate Over Site" and "Concrete" were given in *The Builder* for December 26; rates for "Plain Edge and Tongued and Grooved Flooring," "Battening for Tiles or Slates," "Carcase Timber" and "Common Bricks, one frog (scaffolding not included)" were given in our January 2 issue; and rates for "Architrave, Picture Rail and Skirting," "Plaster Board and Setting (scaffolding not included)," "Wall Tiling," "Rendering and Setting," and "Door Linings" appeared on January 16.

(To be continued)

CAST IRON AND ASBESTOS R.W. PIPE

Description of Item	Materials					Labour						Total Cost		
			Cost					Cost						
To arrive at the cost of 1 ft. the collective cost of a 6 ft. length and 3 ft. length has been taken	Pipe	Nails	Pipe at per ft. run 25.08d.	Nails at per lb. 14.2d.	Total cost of materials	Plumber	Mate	Plumber at per hr. 35.68d.	Mate at per hr. 28.80d.	Total cost of labour	Adjustment	Collection	s. d.	Unit
	Ft. run	lb.	Pence	Pence	Pence	Hours	Hours	Pence	Pence	Pence	Pence			
3 in. cast iron r.w. pipe ..	1.05	.03	26.33	.42	26.75	.09	.09	3.211	2.592	5.803	—	32.553	2 8½	per ft. run
Note.—Swannecks and shoes are extra over r.w. pipe. The cost of 1 ft. 6 in. of r.w. pipe is deducted for swannecks and 6 in. for shoes.														
3 in. ditto swanneck 12 in. proj.	Fitting 1	—	Fitting 84.00	—	84.00	.18	.18	6.422	5.184	11.606	48.83	95.606	3 11	each
3 in. ditto shoe	1	.1407	37.80	1.99	39.79	.20	.20	7.136	5.76	12.896	16.277	52.686	3 0½	each
3 in. ditto head	1	.1407	63.00	1.99	64.99	.25	.25	8.92	7.20	16.12	—	81.11	6 9½	each
		Pipe clips	Pipe at 14.10d. per ft.	Pipe clips at 13.0d. each										
3in. asbestos r.w. pipe ..	1.05	.22	14.805	2.86	17.665	.09	.09	3.211	2.592	5.803	→	23.468	1 11½	per ft. run
Note.—Swannecks and shoes as previously stated.														
3 in. ditto swanneck 12 in. proj.	Fitting 1	—	Fitting 50.00	—	50.00	.18	.18	6.422	5.184	11.606	35.202	61.606	2 2½	each
3 in. ditto shoe	1	1.00 Nails lb.	24.00	13.00 Nails	37.00	.20	.20	7.136	5.76	12.896	11.734	49.896	3 2½	each
3 in. ditto head	1	.1407	54.00	1.99	55.99	.25	.25	8.92	7.20	16.12	—	72.11	6 0½	each

WROUGHT IRON PIPES

Description of Item	Materials							Labour							Total Cost			
					Cost							Cost						
The following are based on typical installations	Pipe inc. waste	Elbows.	Connectors	Pipe hooks	Pipe at per ft. run	Elbows at each	Connectors at each	Pipe hooks at each	Total cost of materials	Plumber	Mate	Plumber at per hr. 35.68d.	Mate at per hr. 28.80d.	Total cost of labour	Collection	s. d.	Unit
	Ft. run	Number	Number	Number	Pence	Pence	Pence	Pence	Pence	Hours	Hours	Pence	Pence	Pence			
½ in. galvanised tube, including all short running lengths, sockets, connectors, elbows, bends and fire bends (60 ft. taken)	63.0	8	2	6	at 5½d. 346.5	at 1/4d. 128.0	at 11½d. 23.0	at 2d. 12.0	509.5	6.92	6.92	246.905	199.296	446.201	955.7	1 4	per ft. run
¾ in. ditto (50 ft. taken) ..	52.5	6	2	5	at 6¾d. 354.37	at 1/7½ 115.5	at 1/2½ 29.5	at 2½d. 12.5	511.87	6.64	6.64	236.915	191.232	428.147	940.0	1 7	per ft. run
1 in. ditto (50 ft. taken) ..	52.5	6 Bends	2	5	at 9½d. 498.75	at 1/10½ 135.0	at 1/7½ 39.0	at 3d. 15.0	687.75	7.74	7.74	276.163	222.912	499.075	1186.82	1 11½	per ft. run
1½ in. ditto flow and return to boiler (20 ft. taken)	21.0	4	4	2	at 1/1½ 278.25	Bends at 2/11½ 142.0	at 2/2½ 105.0	at 3d. 6.0	531.25	4.54	4.54	161.987	130.752	292.739	823.98	3 5½	per ft. run

CAST IRON AND ASBESTOS EAVES GUTTER

Description of Item	Materials										Labour					Total Cost			
						Cost							Cost						
To arrive at the cost per ft. run, the collective cost of one 6 ft. and one 3 ft. has been taken	Eaves gutter inc. waste	Fascia gutter brackets	Screws	Red lead putty	Gutter bolts	Gutter at per ft. run	Brackets at each	Screws at per gross 1/3	Red lead putty at per lb.	Gutter bolts at per doz.	Total cost of materials	Plumber	Mate	Plumber at per hr. 35.68d.	Mate at per hr. 28.80d.	Total cost of labour	Adjustment	Collection	s. d.	Unit
	Ft. run	Number	Dozen	lb.	Dozen	Pence	Pence	Pence	Pence	Pence	Pence	Hours	Hours	Pence	Pence	Pence	Pence			
4 in. half round cast iron gutter	1.07	.26	.045	.037	.0147	at 12.13d. per ft. r. 12.97	at 6d. each 1.46	.067	at 8d. lb. .296	at 4d. doz. .058	14.851	.09	.09	3.211	2.592	5.803		20.654	1 8½	per ft. run
				Jointing Compound		at 8.8d.	at 10d. each		Jointing Compound at 1/3 lb.	at 12.83d. doz.									
4 in. half round asbestos gutter	1.07	.26	.045	.037	.0147	9.50	2.60	.067	.555	.188	12.91	.09	.09	3.211	2.592	5.803		18.713	1 6½	per ft. run
Note.—The following are extra over eaves gutter. The cost of 2 ft. of gutter is deducted for angles and 1 ft. for nozzles																			
	Number					Fitting											Deduct			
4 in. half round cast iron angles	1	—	—	.22	.087	32.50	—	—	1.76	.348	34.608	.50	.50	17.84	14.40	32.24	41.308	66.848	2 1½	each
4 in. do., nozzles	1	—	—	.22	.087	32.50	—	—	1.76	.348	34.608	.375	.375	13.38	10.80	24.18	20.654	58.788	3 2½	each
4 in. do., stop end ..	1	—	—	.22	.087	12.60	—	—	1.76	.348	14.70	.09	.09	3.211	2.592	5.803	—	20.503	1 8½	each
				Jointing Compound					Jointing Compound at 1/3 per lb.	at 12.83d. per doz.									
4 in. half round asbestos angles	1	—	—	.22	.087	20.00	—	—	3.3	1.116	24.416	.50	.50	17.84	14.40	32.24	37.426	56.656	1 7½	each
4 in. do. nozzles	1	—	—	.22	.087	20.00	—	—	3.3	1.116	24.416	.375	.375	13.38	10.80	24.18	18.713	48.596	2 6	each
4 in. do., stop end ..	1	—	—	.22	.087	6.00	—	—	3.3	1.116	10.416	.09	.09	3.211	2.592	5.803	—	16.219	1 4½	each

SHEET LEAD AND SOAKERS

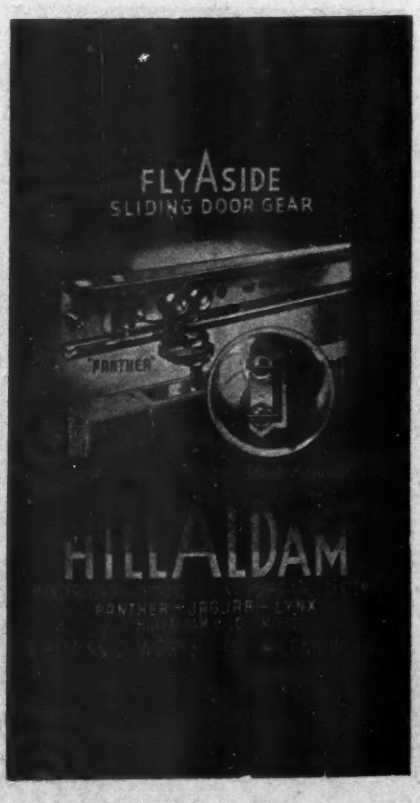
Description of item	Materials: Lead, including waste (cwts.)	Materials: Cost, Lead at per cwt. 109/6 (pence)	Labour: Plumber (hours)	Labour: Mate (hours)	Labour: Cost, Plumber at per hr. 35.68d. (pence)	Labour: Cost, Mate at per hr. 28.80d. (pence)	Labour: Cost, Total cost of labour (pence)	Total Cost (pence)	s.	d.	Unit
4 lb. lead in gutters and cesspools ..	1.05	1,379.70	7.0	7.0	249.76	201.60	451.36	1,831.06	152	7	per cwt.
5 lb. Do.	1.05	1,379.70	6.5	6.5	231.92	187.20	419.12	1,798.82	149	11	per cwt.
4 lb. lead in valleys and cover flashings	1.05	1,379.70	5.0	5.0	178.40	144.00	322.40	1,702.10	141	10½	per cwt.
5 lb. Do.	1.05	1,379.70	4.5	4.5	160.56	129.80	290.36	1,670.06	139	2	per cwt.
4 lb. lead in aprons	1.05	1,379.70	6.0	6.0	214.08	172.80	386.88	1,766.58	147	2½	per cwt.
5 lb. Do.	1.05	1,379.70	5.5	5.5	196.24	158.40	354.64	1,734.34	144	5½	per cwt.
4 lb. lead in stepped flashings ..	1.125	1,478.25	6.0	6.0	214.08	172.80	386.88	1,865.13	155	5½	per cwt.
5 lb. Do.	1.125	1,478.25	5.5	5.5	196.24	158.40	354.64	1,832.89	152	9	per cwt.
4 lb. lead in gutters or dampcourse to hollow walls ..	1.03	1,353.42	4.25	4.25	151.64	122.40	274.04	1,627.46	135	7½	per cwt.
5 lb. Do.	1.03	1,353.42	3.83	3.83	136.65	110.30	246.95	1,600.37	133	4½	per cwt.
3 lb. lead in soakers (6 in. by 6 in.) ..	.0803	105.51	.18	.18	6.42	5.18	11.60	117.11	9	9½	per doz.
4 lb. Do.	.1071	140.72	.20	.20	7.13	5.76	12.89	153.61	12	9½	per doz.
Zinc soakers (6 in. by 6 in.)	ft. sup. 3.0	at 11d. ft. sup. 33.0	.12	.12	4.28	3.45	7.73	40.73	3	4½	per doz.

HOTEL, RESTAURANT AND CATERING EXHIBITION

FROM A REPRESENTATIVE

IN the slow and difficult process of reverting industry from war-time to peace-time conditions, exhibitions can play a useful part. They serve as a shop-window for the display of the latest productions. But not all these are to be had for the asking. Many are for export only, while others are in very short supply. The export trade and the home market are interdependent. More export means more at home, in due time. We fully realise that; but the problem is how to get substantial quantities of basic material for the production of both. At all cost we must feed the export trade, yet we cannot starve ourselves. These views, as regards equipment, were borne in on me when I visited the Hotel, Restaurant and Catering Exhibition which has been open for the past week in the National Hall at Olympia (it closes to-morrow, Saturday, January 24, at 8 p.m.). Here is a very comprehensive display of every sort of appliance for hotels, restaurants and canteens, and, as such, it merits the attention of all architects and others concerned with the design and equipment of these establishments. The exhibition is the first of its kind held since 1937. It has been sponsored by "The Caterer and Hotel Keeper" and "The Hotel Review," under the auspices of the hotel and catering trade associations.

A special feature is a collection of photographs and models of hotels at home and abroad. These have been gathered together with the assistance and advice of a group of well-known architects, and they have been given a very pleasant setting by the Rowley Gallery, Ltd. Almost all the work shown is modern in design, and, looking at it, I could not help feeling how much more satisfactory it was than if it had been made up of the usual stock-in-trade of classical elements. The exhibits include some very striking buildings. Two exteriors, for instance, of a hotel at Lake Balaton, Hungary (Lajos Hidasi, architect), are impressive examples of modern design, resembling in character some of the recent work in Switzerland. Noteworthy, too, are the photographs of the Hotel Statler in Washington, opened in 1943. This is an imaginative, forceful piece of work by Holabird and Root, who also did the Gibson Hotel at Cincinnati and the Morrison Hotel at Chicago. My eye was caught also by a lively design by Oliver Hill for the Hotel Constantia, Famagusta, Cyprus; by a beautiful model of a projected hotel, "The Ship," at Margate, by E. B. Musman, whose Comet Hotel at Hatfield is also shown; and by the latest treatment of a British Railways refreshment room—the Waiting Refreshment Room at Fenchurch-street Station. Two large Canadian hotels, the Hotel Palliser at Calgary (1912) and the Hotel Vancouver at Vancouver (1940), are impressive by their vast size, but, to me, less interesting than the new Causerie at Claridge's (Easton and Robertson, architects), the reconstructed Winter Gardens at Margate (Ramsey, Murray and White, architects), and some cartoons for wall decorations in the Rivoli Bar at the Ritz and the Fountain Hotel at Loughton by Helen McKie. Two floating hotels are shown—the public rooms on the "Queen Mary" and on the new Southern Railway cross-Channel steamer, the "Falaise." The former are palatial, but struck me as being restless and overdone. Last, but by no means least for mention is the Prestatyn Holiday Camp (William H. Hamlyn, architect), shown by a large model and plan.



Quick-Frosted Foods.

Having thus briefly reviewed what is the chief feature of the exhibition from the architectural point of view, I may go on to say something of its other features, which will be of far greater interest to the hotel and catering industry and the public in general. First of these, in point of novelty, must come the display of quick-frosted foods. These, it appears, will revolutionise the industry. We have had frozen fruits and foods for many years. But the feature of these new ones is that they are "quick" frozen—that is to say, by a new process they are frozen in two hours, instead of a very much longer time, and we are told that all the vitamins, flavours and other qualities are thus preserved unimpaired. At the exhibition, on the ground floor, there is a special display of them from England, Scotland, Ireland, Denmark, Canada, U.S.A., Iceland, Newfoundland, France, Holland and Switzerland. Upstairs is another display, of Lyons and Co.'s "Frood." This is fresh food cooked at Cadby Hall and quick-frozen by the new process. It is kept in cold rooms till required, and can then be thawed out naturally and reheated. This opens up a new vista for the caterer, who can now "serve meals at times when, hitherto, staff difficulties have stood in the way." We are told that, after being thawed and heated, "Frood" presents a first-class restaurant dish. "The meat is as tender, the vegetables are as full of colour, the grilled sole is as crisp, and the puddings are as light as if they had come straight from the chef!"

After these enticing words, and a mere reference to the international cocktail competition which has been drawing crowds at the exhibition daily, it seems very dull to talk of equipment. But that is of paramount concern to those who are responsible for the everyday running of a restaurant, hotel or canteen. I do not propose to go into much detail, however. The present purpose will be served by mention of some of the exhibits.

The British Gas Council have a display, and there is another by the British Electrical Development Association, showing representative collections of appliances for heavy-duty cooking by gas and electricity. The General Electric Co. has another display, among which to be especially noted are the new standardised units comprising ovens, bain-marie, hot cupboard, boiling table, etc., which can be grouped to suit the plan of the kitchen. Gas is further represented by the exhibits of Radiation (Large Cooking Equipment), Ltd., and electricity by the Jackson Electric Stove Co., Ltd.; while the latest appliances for cooking by both gas and electricity are shown by Benham and Sons, and solid-fuel appliances by the Esse Cooker Co.

Labour-Saving Appliances

A multitude of appliances for saving labour in the preparation of food can be seen at the exhibition—electric potato peelers, mixers, shredders, slicers, and so forth—as well as cafeteria service counter equipment, water boilers, tea and coffee makers, etc.—the last-named including the "Thermal-Urn" (W. J. Hubbard and Sons, Ltd.), a most useful insulated tea urn, made in several sizes, with capacities from 50 to 150 workmen's mugs. For washing-up on a big scale there are machines such as the "Deluge" (Dawson Bros., Ltd.), the "Splendid" (Staines Kitchen Equipment Co., Ltd.), and the "Euk" (Steel and Co., Ltd.), and for the upkeep of rooms there are heavy-duty suction cleaners and electric floor polishers. Mention must be made, too, of exhibits for the destruction of pests—which can be a very formidable problem where there is food about in warm quarters. But of greater interest to me, personally, were some items of furnishing. Heal's Contracts, Ltd., show some pleasing modern furniture and fabrics; Hampton and Sons, Ltd., show some good beds for hotels; and Maple and Co., Ltd., have a prominent display of "Plastahide," an odourless and fadeless plastic substitute for leather for covering chairs. For table and counter tops in hotels and restaurants the "cigarette proof" quality of the new plastic material "Formica" (De La Rue Insulation, Ltd.) should prove invaluable. Finally, I would mention the delightful "Air-Flex" venetian blinds shown by J. Avery and Co. These (British-made) are very different from their Victorian predecessors, for the slats, instead of being of wood, are of thin flexible metal, ferro-steel rendered rust-proof by electro-galvanising and bonderising, and stove-enamelled in attractive colours, with gay tapes to hold them. Blinds of this kind have been a favourite in America for many years.

UNIFORMITY OF CONCRETE

EFFECT OF BATCHING ERRORS

THERE are sometimes variations in the quality of concrete as produced in practice. A contributory factor in such variation concerns the methods used to measure the quantities of the constituent materials. This subject is dealt with in "Road Note No. 3: Effect of Batching Errors on the Uniformity of Concrete," published for the Department of Scientific and Industrial Research by H.M. Stationery Office, price 4d., by post 5d.

During recent years a good deal of consideration has been given, at the Road Research Laboratory and elsewhere, to the nature and causes of the variation in quality of concrete as produced in practice. The Road Note gives estimates of the effect on the concrete strength of batching all the materials by weight, by a combination of weight and volume, and by volume. Estimates have been made of the errors introduced by the various methods of batching; the effect of these errors on the water-cement ratio have been determined, and from this it has been possible to assess the effect on the quality of the resulting concrete.

The results of the analysis show the greater accuracy of weigh-batching and emphasise the need for adequate supervision and control of all the batching operations.

STARTING INCENTIVES SCHEMES

SOME PRACTICAL SUGGESTIONS

A STRONG plea for the widest possible adoption of incentives in the building industry was made recently by MR. D. E. WOODBINE PARISH, Chairman of the London Master Builders' Association Central No. 1 Area, when he addressed the Southern Area at Croydon.

The speaker said: Those who most strongly oppose bonusing always select either trivial or highly complicated work involving many unknown facts to prove that any scheme is doomed to failure. But no one has ever suggested that a bonus or target can be fixed for every operation in the building industry. There are, however, a great number of operations upon which targets can quite easily be fixed—straightforward brickwork, drainage, excavating and concreting on new construction, first and second fixings, internal and external painting and plastering, to mention only a few. If this were not so, how is any builder ever able to submit an estimate or tender with any degree of self-reliance at all?

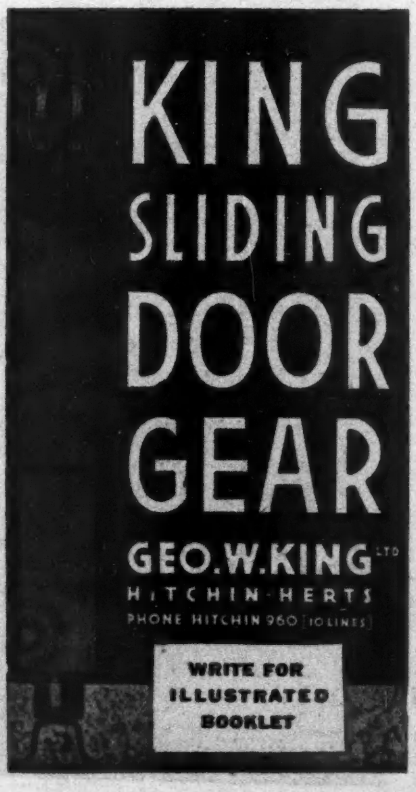
I am confident that building trades employers can, if they apply themselves properly, fix targets and bonuses upon a fair range of the simple operations which they undertake, and that they can gain therefrom valuable experience which will enable them to modify, if necessary, and then expand the scheme to cover quite a large proportion of normal work.

It needs careful forethought; it needs also a desire to succeed. For what it involves is the conversion of estimated labour costs into estimated quantities of work per man hour and the calculation of the sum total of man hours entailed upon any chosen unit of work—for example, a particular section of excavation, concrete foundation or brickwork, a room or rooms in the case of internal decoration or possibly plastering, or a specified number of items such as hanging doors, fixing ironmongery, etc.—for the purpose of arriving at a target and fixing the bonus.

To those who are bewildered by this whole matter, I suggest that they start by taking any operation, trying to establish the various component parts and dealing with each part as a separate little problem needing a solution. It is only by the process of reducing complex operations into simple small units that an approach to the solution of bonusing becomes at all possible.

I appeal to all builders to apply themselves to this vital problem, both for their own sakes and also in the interests of the country as a whole, for we must all try to reduce building costs which have now reached an entirely uneconomic level.

I know only too well that this will entail for many of us a deal of hard work and personal effort, but I feel confident that we shall never regret the endeavours we may make. As Mr. Churchill said of Mulberry Harbours: "The difficulties will argue for themselves. Let them, while we get on with the job."

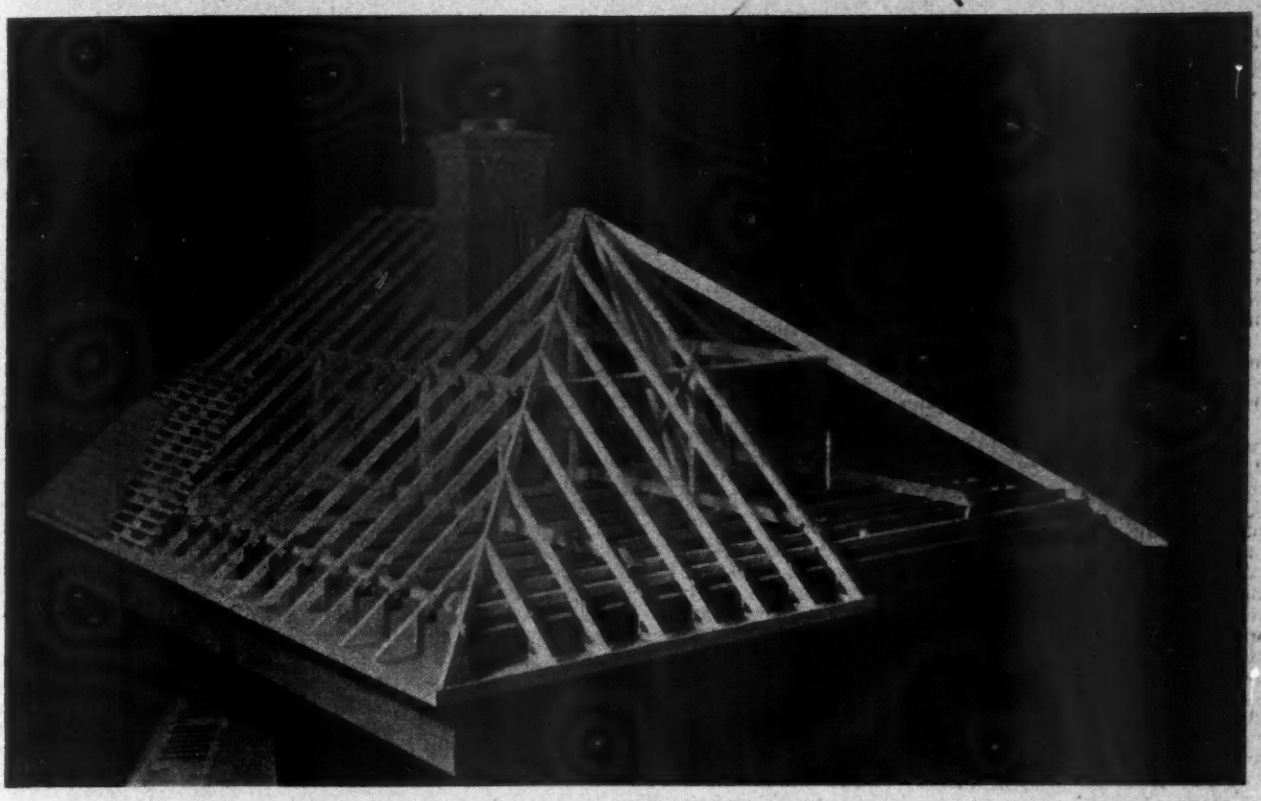


SCHOOL OF PLANNING AND RESEARCH

THE Final Completion Course in Town and Country Planning ended on December 20 last. The following candidates passed the course with distinction: K. Watts, B.Sc., Southampton; R. F. F. Williams, A.M.Inst.Mun.Eng., Cheshire; K. D. Fines, Sussex; T. N. W. Akroyd, M.Sc., Lancs. Other successful candidates were: D. Goldhill, A.R.I.B.A., A.A.Dip., London; J. A. Smeed, B.Sc. (Estate Management), Herts; I. G. Maclaurin, A.R.I.B.A., Hants; J. D. Cordwell, A.R.I.B.A., A.A.Dip. (Hons.), London; L. Mellinger, A.R.I.B.A., London; R. Gorbing, London; L. Doudkin, Palestine; T. A. Baldwin, A.R.I.B.A., London; F. H. B. Layfield, Durham; R. H. Pullan, B.Sc., Birmingham; J. A. Brant, Gloucestershire; D. A. Tookey, B.A., Leicester; J. A. Francis, Wiltshire; A. E. Rochard-Thomas, A.R.I.C.S., Surrey. Of the 162 students who have attended these courses, 155 have passed out successfully. Particulars of a new one-year full-time Diploma Course in Town and Country Planning can be obtained from the Secretary, School of Planning and Research for Regional Development, 34, Gordon-square, London, W.C.1.

RAILWAY PROGRAMME

THE permanent-way programme to be carried out on the Western Region of the British Railways (the old G.W.R.) during 1948 has been drawn up to include part of the two years' arrears of maintenance which it is hoped to clear off, with current work, in the next five years. On the assumption that the materials, particularly steel and wood, will be available, 490 miles of track—mostly on the main line routes—will be relaid, re-railed or re-sleepered; a task which will involve the use of 33,000 tons of new rails, 750,000 sleepers and 250,000 cubic yards of ballast. If, however, the supply of materials is insufficient, the arrears will be cut from the programme and the mileage reduced to 370. The programme, which includes the repainting of about 100 stations as well as a number of railway bridges and the repair or renewal of 260 miles of fencing and 1,000,000 sq. yds. of roadway, will cost something in the region of three million pounds.



A NEW TIMBER ROOF. The newly-developed design for a timber roof seen on this page is claimed to use less timber, to be cheaper and better than a roof constructed on purely traditional lines, and, moreover, to permit freedom of planning, as its structural stability is in no way dependent on the existence of load-bearing partitions. These claims are substantially supported by the Timber Development Association, as the design has been evolved after intensive study of the problems encountered by local authorities and others engaged on large-scale housing projects. The roof has also been tested at the Forest Products Research Laboratory, Princes Risborough, and proved satisfactory. Further details are obtainable from 75, Cannon-street, E.C.4.

PLASTER AND PLASTERBOARD

SUPPLEMENT TO M.O.H. CIRCULAR

THE Ministry of Health has issued the following supplement to M. of H. Circular 76/46:—

In a previous note (Plasterboard No. 2: July, 1946) it was laid down that ceilings in traditional houses should be constructed of plasterboard only to the extent of approximately one-third of the total number of dwellings, and this limitation has had to be maintained up to the present as supplies of plasterboard have not been sufficiently plentiful. Now, however, by reason of an increase in the productive capacity of the industry as a result of plant extensions, it is possible to relax the restriction and to permit plasterboard to be adopted for ceilings in new houses to a greater extent than hitherto. The above limitation is accordingly withdrawn and plans for ceiling construction may now be made on the assumption that increased supplies of plasterboard for this purpose will be available in future.

A total concentration on plasterboard of the demand for ceiling construction would, however, give rise to difficulties, and full use should therefore continue to be made of insulation board. It is suggested that insulation board could be used with advantage for first-floor ceilings, thus enabling plasterboard to be reserved in the main for ground-floor ceilings in view of its relatively superior fire-resisting qualities. (Insulation board may, however, be adopted for ground-floor ceilings where it can be used as a shuttering for in-situ concrete).

The use of insulation board for first-floor ceilings will improve the thermal insulation of the house. In addition, the finish need only consist of a double coat of distemper, thereby reducing the consumption of hard plaster and minimising the calls upon plasterers. This saving is important in view of the delay now being experienced as a result of the present shortage of gypsum and anhydrite plasters and the occasional difficulty in securing plasterers.

A general shortage of gypsum and anhydrite plasters for plastering is likely to continue for some time. The industry is at present working to full capacity, and although plans have been made for increasing production, it is not likely that these will have any appreciable effect on supplies before the Spring of 1948 at the earliest. It is accordingly essential that the utmost economy should be exercised in the use of gypsum and anhydrite plasters for some time to come, and guidance on this point will be given in a Plaster Economy Memorandum which will shortly be issued.

It is not yet possible to relax generally the prohibition on the use of plasterboard for wall linings in traditional houses, but in view of the easier supply position some such use may now be permitted on a small scale where only very little timber is required for battens. No additional timber can, of course, be allowed for this purpose, and it is expected that local authorities desirous of specifying plasterboard for wall linings will assist in keeping the overall demand for plasterboard within bounds by making use of other materials to the greatest possible extent for ceilings.

PAINTERS EQUIPMENT MANUFACTURERS
Colour Sprays Ltd
54 HEATH STREET
HAMPSTEAD N.W.3
PHONE HAMPSTEAD 0028

German Industrial Reports.

Reports on "The German Metal Window Industry" (B.I.O.S. 1525) and "The Use in Germany of Water-Proofing and other Additions to Mortar and Concrete" (B.I.O.S 1663) have now been made available to the public and may be obtained from the Stationery Office at 17s. 6d. and 1s. 6d. respectively.

REPORTS ON GERMAN & JAPANESE INDUSTRY

B.I.O.S. OVERALL SUMMARIES

SINCE the end of the war the activities in Germany of B.I.O.S. (British Intelligence Objectives Sub-Committee), its American counterpart, F.I.A.T. (Field Information Agency, Technical), and the combined Anglo-American Agency, C.I.O.S. (Combined Intelligence Objectives Sub-Committee) which preceded them, have been concerned in bringing the very extensive and often extremely valuable information obtained from Germany to the attention of those in industry who can make use of it in solving their own industrial problems.

Actual investigations in Germany ceased at the end of June, 1947. To date 2,720 reports have been issued covering the investigations, in which more than 6,000 investigators took part. The task of preparing these reports on different aspects of each industry is rapidly being completed. It is now possible to state that all subjects have been covered, and that critical summaries are now being written by recognised experts in major fields of industry, and that some of them are already in press. They will contain a full bibliography of B.I.O.S., C.I.O.S., F.I.A.T. and Japanese reports, as well as lists of relevant F.D.U. summaries. These reports will be known as "B.I.O.S. Overall Reports," and there will be 50 of them, all of which are expected to be printed by the end of June of this year.

The critical summary relating to the building industry has been compiled by Mr. T. W. Parker, of the Building Research Station of the Department of Scientific and Industrial Research. The following subjects are dealt with therein: Building materials; structure; heating, lighting and acoustics; building plant; organisation; miscellaneous, and research and development.

All inquiries should be addressed directly to: Board of Trade, T.I.D.U., Research Station, 40, Cadogan-square, London, S.W.1.

BALLAST AND SAND INDUSTRY

WAGES AGREEMENT

AT a meeting of the National Joint Council for the Ballast and Sand Industry held on January 12, the following decisions were made:—

Adoption of 44-hour Week.—That a 44-hour week be adopted in place of the 48-hour week mentioned in Clause 8 of the Wages Agreement (*i.e.*, Monday to Friday, eight hours; Saturday, four hours; or such variation as may be mutually decided between the employer and employees).

Compensatory Adjustment of Rates.—That immediately after the pay-day in the week ending January 24, 1948, the basic rates of wages for labourers be increased by 2½d. per hour, and that the wage rates for "C" Class licence drivers in the industry be similarly increased by 2½d. per hour.

Existing Higher Rates.—That those employers already operating a higher basic wage in accordance with Clause 7 (7) of the Agreement, may be exempted from such portion of the present increase as is already in operation.

Holiday Payment.—That holiday payment be amended to provide for 7½ hours per day (*i.e.*, one-sixth of 44 hours) instead of eight hours (*i.e.*, one-sixth of 48 hours).

Sunday Overtime.—That the wording of Clause 9, dealing with payment for Sunday work, be amended to clarify the meaning of this clause.

European Volunteer Workers.—That, operative from January 24, 1948, the employment of European volunteer workers in the industry be approved, on the same conditions as were agreed at the meeting of February 27, 1947, for the employment of members of the Polish Resettlement Corps.

Further details of these decisions can be obtained from the Employers' Secretary, National Joint Council for the Ballast and Sand Industry, 48, Park-st., W.1.

TRADE NEWS

Director Appointed.

Messrs. George Wimpey and Co., Ltd., announce that Mr. J. S. Killick, C.B.E., M.Inst.C.E., has been elected an additional director.

Appointment.

Mr. Alastair C. Crockatt, A.M.I. Mech.E., has been appointed a director of William Crockatt and Sons, Ltd., Simplex Works, 64, Darnley-street, Glasgow, S.1.

Firm's Magazine.

J. Gliksten and Son, Ltd., timber merchants, of Carpenters-road, Stratford, London, E.15, have published the second edition of their magazine for the staffs of the Gliksten group of companies.

An Edinburgh Office.

Progress Cables and Accessories Co., Ltd., whose London address is Regent House, Eversholt-street, London, N.W.1, have set up a Scottish depot at 20a, Nelson-street, Edinburgh.

A Midland Warehouse.

The British Aluminium Co., Ltd., Salisbury House, London Wall, E.C.2, announce that the Midland Warehouse at 17-18, Providence-street, Cradley Heath, Staffs., is now in full operation. Tel.: Cradley Heath 6881. The company's Midland Branch Office remains at Lansdowne House, 41, Water-street, Birmingham, 3. Tel.: Central 3053.

NEWS ITEMS

Health Congress, Harrogate.

The Right Hon. Lord Inman has accepted the office of President of the Health Congress, which is to be held at Harrogate from May 24 to 28 next by the Royal Sanitary Institute.

Reconstruction at Nuneaton.

Now that Mr. Frederick Gibberd, F.R.I.B.A., A.M.T.P.I., has completed his design for the new satellite town of Harlow, as outlined by Mr. Phillips Dales, F.R.I.B.A., in *The Builder* of December 19, he is commencing work on a plan for blitzed Nuneaton, in his home county of Warwickshire.

Leeds Works Department.

The Works Department of the Leeds Corporation has been established to carry out repair and maintenance work to Corporation properties. Mr. R. H. Hudson, L.R.I.B.A., M.R.San.I., Director of Works, Works Department, Leeds, is endeavouring to establish a technical library for the use of the department, and would be glad to receive catalogues, price lists and current literature.

Plumbing Lectures.

During a tour of the country in the second half of 1947 the lecturer and demonstrator of the Lead Industries Development Council, Mr. L. E. Allen, A.R.San.I., gave more than a hundred lectures to audiences consisting largely of plumbers and plumbing students. The Council's lecturers are available to give lectures and demonstrations to all recognised organisations, and applications for their services should be addressed to Eagle House, Jermyn-street, S.W.1.

Prize Competitions, 1948.

The Council of the Royal Sanitary Institute have announced particulars of the prize essay competitions for 1948. Two prizes are offered: the John Edward Worth Prize of £40 for an essay on "Practical Improvements of Appliances or Inventions in or about Dwelling-Houses," and the John S. Owens Prize of £15 for an essay on "Atmospheric Pollution."

Entries must be submitted by December 31. Intending competitors should apply to the Secretary of the Institute, 90, Buckingham Palace-road, S.W.1, for a copy of the general conditions.

British Exhibition at Copenhagen.

An exhibition of goods of British manufacture will be held in Copenhagen from September 18 to October 3 next. The exhibition is being organised by the British Import Union of Copenhagen in consultation with the Federation of British Industries, and with the approval of the British and Danish Governments. The aim of the exhibition is to encourage export trade to the Scandinavian and neighbouring markets. Products of the engineering, chemical, building and associated industries will be displayed in the Forum Exhibition Building, the largest exhibition building in Copenhagen; textile and miscellaneous industries in the Tivoli Gardens, and transport, including motor cars and motor vehicles, in the Royal Riding House. Firms wishing to take part in the exhibition are invited to make early application for space to the Exhibition Committee, the British Import Union, Raadhuspladsen, 45, Copenhagen, stating the kind of goods they wish to display and, where possible, the name of their agent in Denmark. Further information is obtainable from the London office of the Copenhagen Exhibition, Earl's Court Exhibition Building, London, S.W.5.

THE SCOTTISH BUILDER

NEW BUILDINGS

Cambuslang.—Manufacturing building, also new storage building, alterations and additions to dye works, for which the architects are Gillespie, Kidd and Coia, 19, Waterloo-st., Glasgow.

Glasgow.—Wm. Burns (Glasgow), Ltd., to erect factory at Eaglesham and Craighall-sts.

Glasgow.—Alterations and additions proposed at Kirklet-ter., for P.I. Co., Ltd., for which the architect is R. Aitchieson, 14, Belgrave-pl., Edinburgh. Alterations and additions proposed at Kingsburgh-gdns., for which the architects are Noad and Wallace, 147, West Regent-st., Glasgow.

Glasgow.—New school buildings proposed at Possil-rd., for which the architect is J. MacNab, 129, Bath-st., Glasgow.

Glasgow.—Offices and stores to be erected by the Apex Roofing Co., Ltd., Glasgow. Storage building proposed at Battlefield-rd., for which the architect is D. MacRobert, 112, Kings Park-ave., Glasgow.

Greenock.—Extensions, etc., proposed at Rankine hospital for which the architects are Cullen, Lochhead and Brown, Cadzow-st., Hamilton.

FUTURE CONSTRUCTION

PUBLIC APPOINTMENTS

Full details of Public Appointments open will be found in the Advertisement pages of this and previous issues.

CONTRACTS OPEN

For some contracts still open but not included in this list see previous issues. Those with an asterisk are advertised in this number. The dates at the heads of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING

JANUARY 28.

†***Bristol T.C.**—Conversion of Coombe House, Canford-la., into flats. City A. Dep. £2 2s. Tenders by February 6.

†***Bromley T.C.**—Adaptation of W.D. hutted camp, Commonside, Hayes Common, for civilian use. Dep. £2 2s.

JANUARY 30.

†***Coulsdon and Purley U.D.C.**—Repairs to 50 houses at Westleigh-ave., Coulsdon. S.

†**Cumberland C.C.**—Erection of standard clinic at St. Bridget's-la., Egremont. J. H. Honghan, County A., 4, Alfred-st., North Carlisle. Tenders by February 14.

JANUARY 31.

Hyde T.C.—16 houses at Harbour Farm site. B.S. Dep. £3 3s.

Meriden R.D.C.—12 houses at Marsh-la., Hampton-in-Arden, Warwicks. E. and S., The Old Vicarage, Coleshill, nr. Birmingham. Dep. £2 2s.

†***Perth and Kinross C.C.**—Work in various trades for erection of school at Mulrton, Perth. Ian A. Moodie (A.), County A., County Offices, York-pl., Perth.

Southwick U.D.C.—10 bungalows at Manor Hall-rd. E. A. Coates, M.I.Mun.E., E. and S., Town Hall. Dep. £3 3s.

FEBRUARY 2.

Blackwell R.D.C.—Construction of three concrete service reservoirs. E., 100, Chesterfield-rd. South, Mansfield, Notts. Dep. £5 5s. each contract.

Bournemouth C.B.—21 houses at Berrans estate. Boro' A. (Rooms 51). Dep. £2 2s.

FEBRUARY 4.

Cleethorpes T.C.—23 houses at George-st A. B. Cooper, B.E. Dep. £2 2s.

Wortley R.D.C.—100 Airey houses at Laneend, Chapeltown. Husband and Co., Architects and Consulting Engineers, 388, Glossop-rd., Sheffield, 10. Dep. £2 2s.

Wortley R.D.C.—8 Airey houses at Grenoside. Husband and Co., Architects and Consulting Engineers, 388, Glossop-rd., Sheffield, 10. Dep. £2 2s.

FEBRUARY 6.

†**Hebburn U.D.C.**—38 houses at Lambley-cres. C., Council Offices. Dep. £2 2s.

***Luton T.C.**—10 houses at Ashcroft-rd., or Farley Hill estates. B.E. Dep. £2 2s.

Maldon R.D.C.—6 houses and 2 bungalows at Latchingdon. A. R. Dannatt and Son, Prudential-bldgs., Duke-st., Chelmsford. Dep. £2 2s.

Wrexham T.C.—Electricity sub-station at Queen's Park. H. Anthony Clark (C.), 1, Grosvenor-rd., Wrexham. Dep. £1 1s.

FEBRUARY 7.

Ashford (Kent) U.D.C.—Rebuilding Nos. 3, 5, 7, 9 and 11, Milton-rd., and 14, Kipling-rd. A. F. Webster, A.M.Inst.C.E., S. and Water E., 5, North-st., Ashford, Kent. Dep. £2 2s.

†***Stamford T.C.**—20 houses at Drift-rd. estate. F. J. Lenton and Partners (F. and A.), 16, Broad-st., Stamford.

Wellingborough U.D.C.—30 houses at Croyland Hall Farm estate. E. and S. Dep. £2 2s.

FEBRUARY 9.

Dunstable T.C.—14 houses at Beecroft estate. B.S. Dep. £2 2s.

Hants C.C.—Light construction school buildings and site works at New Elson, Gosport. S. Low, County A., The Castle, Winchester. Dep. £1 1s.

***Salford T.C.**—Conversion of Nos. 28 and 29, The Crescent, for use as school of chiropody. City E. Dep. £1 1s.

***Southend-on-Sea C.B.**—Houses at Site No. 5, Eastern-ave., Contract E; 10 pairs type 43C; Contract F. 11 pairs type O7. B.E. Dep. £2.

***Wembley T.C.**—Rebuilding Nos. 25-27, Wembley-way. Boro' Treas. Dep. £2 2s.

FEBRUARY 10.

***Chelmsford T.C.**—6 houses, Type "D" and 6 Type "I." B.E. and S. Dep. £2 2s. each type.

Cheshire C.C.—Kitchen and dining room at Romiley County Primary School. E. M. Parkes (F.), County A. Dep. £2 2s.

Hants C.C.—First instalment of Secondary School, Aldershot. S. Low, County A., The Castle, Winchester. Dep. £1 1s.

FEBRUARY 12.

Salop C.C.—Prefabricated hutting for temporary office accommodation at Shrewsbury. A. G. Chant, County A., 5, Belmont, Shrewsbury. Dep. £2 2s.

FEBRUARY 16.

East Lothian Water Board.—New annexe and alterations to existing filter house at Stobshiel. G. H. Hill and Sons (Manchester), Civil Engineer, 51, Mosley-st., Manchester 2. Dep. £5 5s.

Ramsey (Hunts) U.D.C.—20 houses at Westfield site. V. J. Bateman, S., Whytefield-rd. Dep. £2 2s.

FEBRUARY 18.

***Watford R.D.C.**—14 houses at Phillimore-pl., Willow-way, Radlett. C., Council Offices, Wynyard House, Langley-rd., Watford. Dep. £1 1s.

FEBRUARY 20.

†***Hampstead T.C.**—102 working-class dwellings at King Henry's-rd. P. H. Harrold, T.C.

FEBRUARY 23.

***Frinton and Walton U.D.C.**—20 houses at 5 sites. V. G. Scamell, P.A.S.I., Albion House, High-st., Walton-on-the-Naze.

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FEBRUARY 2.

Anglesey C.C.—County S. (Materials).
Chislehurst and Sidcup U.D.C.—E. and S. (Materials).
Cornwall C.C.—County S. (Materials).
Hayes and Harlington U.D.C.—E. and S. (Materials).
Orpington U.D.C.—E. and S. (Materials).
Rutland C.C.—County S. (Materials).
St. Marylebone B.C.—T.C. (Materials).
Southgate T.C.—B.E. and S. (Materials).

FEBRUARY 3.

Kensington B.C.—T.C. (Materials).

FEBRUARY 4.

Gosport T.C.—B.E. (Materials).

FEBRUARY 5.

Sedgley U.D.C.—S. (Materials).

FEBRUARY 6.

Tottenham B.C.—T.C. (Materials).

FEBRUARY 7.

Ashford (Kent) U.D.C.—S. (Materials).
Crompton U.D.C.—E. and S. (Materials).
Rainford U.D.C.—S. (Materials).
Rhondda U.D.C.—E. and S. (Materials).
Ruislip-Northwood U.D.C.—E. and S. (Materials).
Swansea C.B.—B.E. and S. (Materials).
Thorne R.D.C.—S. (Materials).
Whitchurch U.D.C.—S. (Materials).

FEBRUARY 9.

Burnley C.B.—B.E. and S. (Materials).
Chertsey U.D.C.—E. and S. (Materials).
Warrington C.B.—B.E. and S. (Materials).
West Bridgford U.D.C.—E. and S. (Materials).

FEBRUARY 10

Leeds T.C.—Highways E. (Materials).
Staffs C.C.—County S. (Materials).

FEBRUARY 11.

Burton-on-Trent C.B.—B.E. and S. (Materials).
Carmarthenshire C.C.—County S. (Materials).
Pembrokeshire C.C.—County S. (Materials).
Southend-on-Sea C.B.—B.E. (Materials).
Wandsworth B.C.—External painting of dwellings. Housing Estates Manager, Municipal-bldgs.
West Sussex C.C.—County S. (Materials).

FEBRUARY 14.

Alfreton U.D.C.—C. (Materials).
Bromley T.C.—B.E. (Materials).
Dorset C.C.—County S. (Materials).
Enfield U.D.C.—E. and S. (Materials).
Horbury U.D.C.—E. and S. (Materials).
March U.D.C.—E. and S. (Materials).
Wilmslow U.D.C.—S. (Materials).

FEBRUARY 16.

Frimley and Camberley U.D.C.—E. and S. (Materials).
Hebden Royd R.D.C.—External painting of 186 houses at various estates. E. and S., Council Offices, Hebden Bridge.
Heston and Isleworth T.C.—B.E. (Materials).
Isle of Wight C.C.—C. (Materials).

FEBRUARY 18.

Poole T.C.—B.E. (Materials).

FEBRUARY 21.

Kidderminster T.C.—B.E. and S. (Materials).
Northumberland C.C.—County S. (Materials).
Southwark T.C.—T.C. (Materials).
Swadlincote U.D.C.—E. and S. (Materials).

FEBRUARY 23.

Rushden U.D.C.—S. (Materials).
Shoreditch B.C.—B.S. (Materials).

ROADS, SEWERAGE AND WATER WORKS

FEBRUARY 2.

Chesterfield R.D.C.—Roads and sewers on Eckington Central estate. E., Council House, Saltergate. Dep. £2 2s.

Dover T.C.—Roads and sewers at Buckland Valley and Green-la. Farms housing estate. B.E. Dep. £2 2s.

East Riding C.C.—Surface dressing of roads, County S.

FEBRUARY 3.

Settle R.D.C.—Roads and sewers at Northfields site. E. and S. Dep. £2 2s.

FEBRUARY 4.

Potters Bar U.D.C.—Roads and sewers at Blanche-la. E. and S., Wyllyotts Manor, Darkes-la. Dep. £2 2s.

Surbiton T.C.—Resurfacing Red Lion-rd. and Claremont-rd. B.S. Dep. £2.

Wortley R.D.C.—Roads and sewers at Laneend site, Chapeltown. Husband and Co., 388, Glossop-rd., Sheffield, 10. Dep. £2 2s.

FEBRUARY 5.

***Calne and Chippenham R.D.C.**—Roads and sewers, etc., at Quarry Hill site, Box, Wilts. Walter Rudman and Edwards, 32, Market-pl., Chippenham. Dep. £3 3s.

FEBRUARY 6.

Surbiton T.C.—Roads and sewers at Gosbury Hill site. B.S. Dep. £2.

FEBRUARY 7.

Ashford (Kent) U.D.C.—Resurfacing of certain roads. A. F. Webster, A.M.Inst.C.E., S., 5, North-st. Dep. £2 2s.

FEBRUARY 9.

Bredbury and Romily U.D.C.—Roads and sewers at Woodlands estate and Cherry Tree estate. S. Dep. £2 2s.

FEBRUARY 10.

Berwick-on-Tweed T.C.—Surface dressing of roads. B.S.

Rugby T.C.—Roads and sewers at Deepmore-rd. B.E. and S. Dep. £2 2s.

†**Winslow R.D.C.**—Sewerage and sewage disposal works at 4 villages. D. Balfour and Sons, 131, Victoria-st., Westminster, S.W.1. Dep. £10.

FEBRUARY 13.

Eastleigh T.C.—(a) Foul sewer; (b) rising main; (c) pumphouse, access road, and fencing; (d) pumping sets and accessories. B.E. and S. Dep. £2 2s.

FEBRUARY 14.

Barnes T.C.—Surface dressing of roads. B.E. and S. Dep. £2 2s.

Hertford R.D.C.—Preparation of site at Tonwell. C., 20, Castle-st., Hertford. Dep. £3.

FEBRUARY 16.

Long Ashton R.D.C.—500 yds. of 12-in. stoneware pipe sewer, etc., at Sewage Works, Moorfields-la., Backwell, nr. Bristol. G. K. Foster, S., Council Offices, Flax Bourton, Bristol. Dep. £2 2s.

Sturminster R.D.C.—Sewers and sewage disposal works at Stourton Coundle. Lemon and Blizard, Lansdowne House, Castle-la., Southampton.

FEBRUARY 21

Chapel-en-le-Frith R.D.C.—283 lin. yds. of 9-in. dia. sewer with manholes, etc. Brady and Partington, Market-st., Chapel-en-le-Frith. Dep. £2.

Ryde (I. of W.) T.C.—Making-up Longmead-rd. B.E. and S.

FEBRUARY 23.

Andover T.C.—Reconstruction of sewage pumping station and extension of disposal works. B.E., "Beech Hurst," Weyhill-rd.

MARCH 1.

Chelmsford R.D.C.—Construction of approx. 6 miles of stoneware pipe sewers with manholes, etc., at Great and Little Waltham. Lemon and Blizard, 25, Victoria-st., Westminster, S.W.1. Dep. £5 5s.

GENERAL BUILDING WORK

(LONDON)

Barking. — Housing. — B.C. to rebuild 7-17, Devon-rd., 18-56, St. Awdry's-rd., 75-89 and 79-81, St. Ann's-rd., 66-80, Morley-rd. and 134-140, Oban-rd. Plans by C. C. Shaw (F.), Town Hall.

Barking.—Housing.—County of London Electric Supply Co., Ltd., 46, New Broad-st., E.C.2, to rebuild 12 houses, County Gardens, in conjunction with W.D.C.

Battersea.—Alterations.—And additions to Ingate-pl., for Bacterol, Ltd. Architects, Wallis, Gilbert and Partners, 5, Cromwell-rd., South Kensington, S.W.7.

Bloomsbury.—Conversion.—Plans by Lewis and Hickey, 130, Regent-st., W.1, for conversion for housing purposes of 16, 20-23 and 25.

Bromley.—Housing.—Plans by R. B. Pearce (A.), 151, High-st., for rebuilding 193-201, Homesdale-rd. and 32-34, Wendover-rd.

Deptford.—School.—L.C.C. building school in Clyde-st.

Finsbury.—School.—Building work by L.C.C. at Hugh Myddelton school.

Fulham. — Temporary Housing. — B.C. to acquire following sites for temporary housing: 41 and 43, Burnfoot-ave., 3, Goodson-rd., 40, Harwood-ter., 35 and 60, Sandilands-rd.

Gracechurch-st.—Alterations.—And improvements to Imperial Bank of Iran. Architects, Wilson and Mason (AA.), 11, Great Peter-st., S.W.1.

Greenford.—Housing.—Plans by G. McLean and Partners, 34, The Mall, Ealing, W., for 28 houses, Ealing-rd., and 4 houses, Carr-rd.

Greenwich.—Housing.—B.C. to purchase sites of 80 and 88, Humber-rd. and 60, Vanbrugh-pk. for housing purposes.

Hackney.—School.—Building work by L.C.C. at school in Benthal-rd.

Hampstead.—Housing.—B.C. to purchase 50, Upper Park-rd. for Parkhill-rd. housing site.

Hampstead.—Housing.—B.C. submitting plans for first section of Kilburn Priory scheme to L.C.C.

Hornsey.—Housing.—R. J. Lawson, Roma, The Croft, Barnet, Herts, to build houses, St. James's-la. Plans by S. Abel, Three Oaks, Arkley-la., Barnet.

Ilford. — Bakery. — Suburban Developments, Ltd., 667, Eastern-ave., negotiating with B.C. for bakery and stores, Cranley-mews.

Ilford.—Housing.—B.C. arranging for further 10 houses by H. L. Bird, Ltd., 5, Hainault-st., and 18 by Suburban Developments, Ltd., 667, Eastern-ave.

"BUILDER" PRICES.

"Pioneer" Plaster

The Minister of Works has authorised an increase of 7s. 6d. per ton (from 63s. 6d. to 71s.) in the ex-Works price of "Pioneer" plaster produced by Imperial Chemical Industries, Ltd. The price was last fixed in 1938. The increase, which operates from January 12, is caused by general cost increases.

Islington.—School.—L.C.C. building school at Newington Green.

Kensington.—Rebuilding.—B.C. received plans for rebuilding on site of The Cottage and 1, Russell-gdn. Mews.

Perivale.—Additions.—And alterations proposed at Hoover, Ltd., Western-ave. Architects, Wallis, Gilbert and Partners, 5, Cromwell-rd., South Kensington, S.W.7.

Portman-sq.—Alterations.—And additions, for conversion into offices with flats above, at 37. Architects, Douglas Young and Co., 12, Coleman-st., E.C.2.

St. Helier.—School Dining Rooms.—E.C. approved erection of kitchen and dining rooms at Glastonbury-rd. County Secondary and Primary Scools at £7,530.

Shoreditch.—Public Baths.—B.C. propose extension of washhouses at Haggerston public baths.

South Kensington.—Additions.—And alterations proposed at College of St. Mark and John, King's-rd. and Fulham-rd., S.W.10, by Board of Management. Architects, Messrs. Seely and Paget (FF.), 41, Cloth-fair, E.C.4.

Stoke Newington.—Flats.—Plans by Howes and Jackman (FF.), 1, Verulam-bldgs., Gray's-inn, W.C.1, for flats at Howard-rd. and Colnbrook-rd. Quantity surveyors, E. C. Harris and Partners, 3, Bedford-sq., W.C.1.

Sutton.—School Dining Room.—E.C. to build kitchen and dining room at County Boys' School at £6,234.

Thornton Heath. — Additions. — Domestic science block and 2 prefabricated classrooms to be added to Portland Schools. Architect, E. F. Starling (F.), 3, Addiscombe-rd., Croydon.

Tooting.—Housing.—Wandsworth B.C. to purchase 21-25 (odd) and 52-60 (even), Foss-rd., for Hazelhurst-rd. scheme.

Walthamstow.—Licensed Premises.—Truman, Hanbury, Buxton and Co., Ltd., Spitalfields Brewery, Brick-la., E.1, to build new licensed premises at The Avenue. Plans by company's staff architect.

Wandsworth.—Building.—M. of H. sanctioned acquisition by B.C. of 18 and 20, Priest's-bridge and 21-33, Aldis-st., for building purposes.

Wandsworth.—Housing.—B.C. to purchase 31, 33 and 35, Lower-gr. and 15-19 (odd), Borrodaile-rd., for Iron Mill-pl. scheme.

Wandsworth.—Housing.—B.C. to purchase 9-23 (odd), Hosack-rd. for housing purposes.

Wembley.—Schools.—Plans prepared by C. G. Stillman (F.), 20, Vauxhall Bridge-rd., S.W.1, for Wembley-hill secondary modern schools.

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ENGLAND'S LARGEST GLAZING CONTRACTORS

West Ham.—Additions.—Including offices, boiler house, etc., at Northern-rd., for Everest and Co., Ltd. Plans by R. J. L. Slater (L.), 27, High-st. North, E.12.

Willesden.—Additions.—Including new warehouse, etc., at Pembroke-mews, by Fisher, Atkinson and Co., Ltd., 79, Carlton-vale, N.W.6. Architects, Fleetwood, Eversden and Partners, 7, Carteret-st., S.W.1.

(PROVINCIAL)

Ashton-under-Lyne.—T.C. propose civic centre and social hall on selected site at Town Centre.

Barrowmore.—Committee of East Lancashire Tuberculosis Colony propose additional hostel.

Bath.—T.C. making Compulsory Purchase Order for site between High Barrow-hill and Southdown infants' school for erection of County Primary school.

Bath.—T.C. negotiating for "Full Moon," High-st., Twerton, for part of proposed community centre.—T.C. negotiating for land at Warlands estate, Kelston-rd., for housing purposes.—Housing Committee approved revised plan for completion of Twerton housing scheme.

Batley.—T.C. approved works hostel at Highfield Mills for Thomas Carr & Co., Ltd.

Bolton.—E.C. propose completion of Technical College at Manchester-rd. at £43,542. J. R. Hovenden, quantity surveyor, 8, Princess-st., London, S.W.1.

Boreham Wood.—Essex E.C. propose canteen at Boreham Wood Junior school at £3,063.

Brighouse.—T.C. approved rebuilding Black Horse Inn, Westgate, Clifton, for R. Whitaker & Sons, Ltd., Corporation-st., Halifax.

Bury.—E.C. propose Primary school at Fairfield at £42,000.

Caernarvon.—T.C. propose central omnibus station at Slate Quay parking ground.

Cardiff.—Wallis Tin Stamping Co., Ltd., propose factory at Penarth-rd., in conjunction with Wales and Monmouthshire Industrial Estates, Ltd. Plans by Cunningham & Gibaud, All Saints' House, The Exchange, Bristol.

Dagenham.—Plans approved for further 80 houses, etc., at Rookery estate, for West Ham B.C. Architects are Vine & Vine (AA.), Rudorchbrs., Station-rd., Wood Green, N.22.

Darlington.—R.D.C. to erect 65 houses. Plans by S.

Droitwich.—Worcs C.C. propose extensive alterations at Hindlip Hall for conversion to police headquarters and erection of 16 police houses at Hindlip.

Dronfield.—Derbys E.C. propose extensions at Grammar school.

Dudley.—Members of Presbyterian Church propose new church at Trinity-st. Plans by F. J. Parkinson, 41, Buncer-la., Blackburn.

Durham.—City Council submitted to M.H. plan by H. E. Pitt, Ltd., builders, Sunderland, for erection of 116 houses at Merry Oak estate.

Eastbourne.—Plans prepared for conversion into flats of Cotswold Hotel, Blackwater-rd. Architect is Ben Stevens, 31, Cornfield-rd., Eastbourne.

Essex.—C.C. submitted plan to M. of E. for Secondary school at Rainham.—C.C. propose Secondary school at Saffron Walden.—C.C. propose Secondary school at Little Thurrock.

Garstang.—R.D.C. propose 72 additional houses for land workers at various sites.

Gosport.—B.C. received permission to build additional 20 houses on Bridgemary estate.

Grimsby.—A. & A. E. Blackbourn, Ltd., motor engineers, Granville-st., propose large premises at Wellholme-rd. Plans by T. H. McLean, 45, Victoria-rd., Grimsby.

Hertford.—Layout plans for houses at Bengeo to be prepared by T.C.

Herts.—C.C. propose to extend and improve accommodation at Cell Barnes Colony at £110,000. Plans by C. H. Aslin (F.), County Hall, Hertford.

Macclesfield.—Ches. E.C. propose R.C. Secondary schools off Oxford-rd.

Manchester.—T.C. approved:—Alterations to brewery, Emmott-st. and Monsall-rd., for Wilsons Brewery Co., Ltd. (S. C. Emerson, architect, brewery offices); alterations to factory, Factory-la. and Williams-pl., Blackley, for W. Howarth & Co. (J. R. Bradshaw, architect, Hill-la., Blackley); canteen to works, Whitworth-st., Openshaw, for Williams & Williams, Ltd. (J. S. A. Young & A. Purves (A.), architects, 12, St. Ann's-sq.); additions to works, Bradnor-rd., Harling-rd., Northenden, for Holden & Brooke, Ltd. (Newton, Leach & Booker (F. & AA.), architects, 28, Kennedy-st., Cooper-st.); works canteen and recreation centre at Hendham-vale Works, Blackley, for Small & Parkes, Ltd. (H. S. Fairhurst & Son (FF.), architects, Chancery-chbrs., 55, Brown-st.).—E.C. propose extensions at Corpus Christi R.C. Schools, Miles Platting, and at All Saints' C.E. Schools, West Gorton.

Market Drayton.—U.D.C. propose development of 10 acres of land at Towers Lawn for civic centre.

Middleton.—Lancs E.C. propose County Primary school at Bowlee.

Nantwich.—R.D.C. approved schemes for erection of 226 houses on 25 sites.—Milk Marketing Board propose grass-drying station at Wardle.

Newcastle (Staffs).—T.C. approved:—Lecture hall, drill hall at Liverpool-rd. for Staffs Territorial Association (Wood, Goldstraw & Yorath (F. & A.), architects, Victoria-chbrs., Station-rd., Tunstall, Stoke-on-Trent.—Golden Vale Tileries, Ltd., propose works at Golden Vale.

Newcastle-on-Tyne.—City E.C. to carry out additions at Rutherford College of Technology. Plans by F. W. Harvey, Education Offices, Northumberland-rd., Newcastle. Education Architect.

Newport (Mon.).—T.C. approved:—Factory at Lilleshall-st. for Brondex Chemicals, Ltd.; garage and stores at Ebbw Vale Wharf for Wm. Adams & Co., Ltd.; alterations to offices at Tregare-st. for South Wales Brattice Cloth and India Rubber Co., Ltd.; offices, drill shed and garages at Malpas-rd., Blaen-y-Pant, for Monmouthshire Territorial and Auxiliary Forces' Association; rebuilding premises at Union-st. for Farrow Bros.; laundry, office and laboratory building and welfare and canteen block at Corporation-rd. for Monsanto Chemicals, Ltd.

Northallerton.—R.D.C. propose to erect 126 houses this year.

Norwich.—Howlett & White, Ltd., propose canteen and social club for employees, St. George's Plain factory. Plans by S. J. Wearing (F.), 5, Redwell-st., Norwich.

Oakengates (Salop).—Broadway Brewery Co., Ltd., Shifnal, propose rebuilding "The Bridge" inn on a new site at Canal Side, Teague's Bridge.

Ormskirk.—U.D.C. received consent of the M.H. for 32 houses at County-rd. site for land workers.

Oxford.—City Council approved:—New office block at Garsington-rd., Cowley, for Pressed Steel Co., Ltd., Cowley-rd., Oxford; alterations at 18-21, Cornmarket-st., Lewis & Hickey (F/A.), 130, Regent-st., London, W.1; swimming pool at Banbury-rd., corner of Marston Ferry-rd., H. W. Smith (F.), 29, George-st., Oxford.

Ramsbottom.—Walker & Homfrays, Ltd., Woodside Brewery, Eccles New-rd., Salford 5, propose erection of "The Hamers Arms" P.H. off Newcombe-rd.

Reading.—W. G. Harris (Reading), Ltd., proposes factory and offices at Basingstoke-rd. Plans by J. S. Paton (L.), 8, Gun-st., Reading.

Reading.—Plans prepared by J. S. Paton (L.), 8, Gun-st., Reading, for proposed church hall, Whitley estate, for Reading Methodist Church.

Rotherham.—T.C. propose central omnibus station.

Rugby.—Rugby Amateur Theatre Society propose theatre at Cattle Market site. Plans by Franklin, Newman & Press, 20, Regent-pl., Rugby.

Salford.—T. Sumner Smith, F.S.I., Clifton Lodge, Park-cres., Victoria Park, Manchester 14, appointed to prepare quantities for alterations and extensions at North Salford Secondary Modern School for Boys at £50,000.—E.C. propose open-air school at Park-la., Pendleton.

Scarborough.—Alderson & Allen, 32, St. Nicholas-st., Scarborough, are architects for rebuilding of premises at Roscoe-st. for Deardens, Ltd.

Stockport.—T.C. approved:—Factory at Waterloo for Coronation Upholstering Co., Ltd., Jules-court; alterations to bleach works, Vale-rd., Heaton Mersey, for Melland & Coward, Ltd.; works canteen, Gorsey Mount-st., for Rhodes, Brydon & Youatt, Ltd.

Stretford.—T.C. approved:—Extensions at Trafford Wharf-rd. for British Oil & Cake Mills, Ltd.; extensions at works canteen kitchen, Barton Dock-rd., for D. Anderson & Son, Ltd.; offices, 609, Stretford-rd., Trafford Bar, for W. J. Brookes & Sons, Ltd. (Derham McKeith & Partners (L.), architects, Empress-bldgs., Church-st., Blackpool).

Walsall.—T.C. approved:—Additions to works at Clarendon-st., for T. Somerfield & Sons, Ltd.; extensions to works at Bradford-la. for Elijah Jeffries & Sons, Ltd.; canteen to works at Birchall-st. for Walsall & District Iron Co., Ltd.

West Hartlepool.—J. J. Dobson, 15, Church-st., West Hartlepool, is architect for rebuilding of bakehouse at Whitby-st. for G. R. Waugh.—Turnbull & Rowe, 6, Scarborough-st., West Hartlepool, prepared plans for dance hall and shops at The Front, Seaton Carew, for Miss J. I. Swales.—C. L. Heslop, 7, Upper Church-st., West Hartlepool, is architect for fish restaurant and shop at Musgrave-st. for Mrs. Oliver.

TENDERS

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modification*.
¶ Denotes *accepted by H.M. Government departments*.

Bexhill-on-Sea.—Reinstatement of De La Warr Pavilion, for B.C.: *T. Wallis & Sons (Builders) Ltd., Buckhurst-rd., Bexhill-on-Sea.

Blyth.—Eight houses at Victoria Mill-rd., Framlington, for R.D.C. H. W. Lovell (A.), A.M.T.P.I. Quantities by Philip Pank, F.R.I.C.S.: *Wm. C. Reade, Aldeburgh, Suffolk, £11,239. Site works including sewer, road and water main, £2,515.

Chadwell Heath.—Rebuilding eight houses at King's-av., for War Damage Commission. A. Glenny & Son, architects, 53, East-st., Barking, Essex: *Leftley Bros., Ltd., Longbridge-rd., Barking, Essex.

Ealing.—Alterations and additions to premises at Ealing Broadway, for Staff Caterers, Ltd., 133, Moorgate E.C.2. Shaw & Lloyd, architects, 74, Great Russell-st., W.C.1: *McQueen Hayes & Co., 4, Old Burlington-st., W.1.

Edmonton.—Rebuilding factory at Bridport-rd., for Dunlop Rubber Co., Ltd. J. W. Wilson (F.), architect, Fort Dunlop, Birmingham: *J. Chapman & Sons, Ltd., Knighton Junction Works, Leicester.

Epping.—18 "Airey" houses at Pound Close site, Nazeing, for R.D.C. Architects: Tooley & Foster, Midland Bank-chbrs., Buckhurst Hill, Essex: *Woodfields (Paddington), Ltd., 20, Woodfield-rd., London, W.9. £24,946.

Glendale.—12 "Airey" houses at Millfield, for R.D.C.: *T. Fairnington & Sons, of Branxton, and *J. Redpath & Sons, Wooler.

Hornsey.—Works for B.C. Erection of flats at Etheldene-av. (Housing Scheme No. 19): *F. W. Padwick; erection of eight flats at Osborne-rd. (Housing Scheme No. 24): *E. H. Jackson.

Howden.—"Airey" houses, for R.D.C. Four at Eastrington: *Crowson & Shaw, Leeds; Six at Hotham: *Scholfield Lyd, Hornsea; eight at Holme: *Y. Yates, York.

Kirkby-in-Ashfield.—61 permanent aluminium houses with site works, for mineworkers, for U.D.C.: *Gilbert Ash, Ltd., Stanhope Gate, W.1.

London. — Reconstruction of Sutherland House, Curzon-st., W.1, for General Reversionary & Investment Co., Ltd. T., P. H. & B. Braddock, architects, 14, Great Smith-st., S.W.1: *A. Roberts & Co., Ltd., 79, Eccleston-sq., S.W.1.

London.—Office buildings at Theobalds-rd., W.C.1, for Belfort Trust, Ltd. Arthur S. Ash (F.), architect, 66, Great Cumberland-pl., W.1. Building: *Rowley Bros., Ltd., Pembury-rd., E.5; reinforced concrete works: *Sir R. McAlpine & Sons (London), Ltd., 80, Park-la., W.1.

¶London (Admiralty).—*Culham, R.N.A.S.*: Resheeting hangars, Geo. M. Carter (Erectors), Ltd., Westminster-chbrs., 7, Victoria-st., S.W.1.

¶London (Air Ministry).—Contracts to value of £500 or over for week ended January 17:—Electrical work: Thorpe & Thorpe, Ltd., London, E.C.2; N. G. Bailey & Co., Ltd., Leeds 1. Building work: Watson & Horrocks, Ltd., Bridgend, Glam. Resurfacing of runways, etc.: Limmer & Trinidad Lake Asphalt Co., Ltd., London, S.W.1. General maintenance work: G. H. Miller & Co., Ltd., London, E.7.

¶London (M.O.W.).—Contracts placed by M.O.W. for week-ending January 15:—
London: Fuel Research Station, Greenwich, reinstatement to roof glazing, W. H. Heywood & Co., Ltd., 26, Abergeldie-rd., Lee, S.E.12; Napier-rd. School, East Ham, E.6, kitchen and dining-room and demolition of A.R.P. shelter, Thomas Tierney & Co., Ltd., 219, West Ferry-rd., Millwall, E.14; St. Mary School, Shernall-st., Walthamstow, E.17, dining-room and scullery, Thomas Tierney & Co., Ltd., 219, West Ferry-rd., Millwall, E.14. *Ayrshire*: Ballochmyle Hospital, Mauchline, installation of internal electrical services, Snall & MacDonald, Ltd., 183, West Campbell-st., Glasgow. *Ches.*: Alpha-dr. School, Birkenhead, kitchen and dining-room, Norwest Construction Co., Ltd., Litherland, Liverpool. *Cumberland*: Distington School, additional classrooms, kitchen and dining centre, Geo Wimpey & Co., Ltd., Teams-st., Dunston, Gateshead-on-Tyne; Windscale Works, Sellafield, 8 Robin hangars, Richard Costain, Ltd., Dolphin-sq., London, S.W.1. *Essex*: Moulsham Schools, Chelmsford, kitchen and dining-rooms, Jesse Gowers, Ltd., Park-rd. Works, Chelmsford; King Edward VI Grammar School, Chelmsford, kitchen and dining-room, Carter & Ward, Harold-gdns., Wickford, Essex; Barking Abbey School, Longbridge-rd., Barking, kitchens and dining-room, Thos. Bates & Son, Ltd., The Old Brickworks, Harold Wood, Romford, Essex. *Hampshire*: S.M.S. Northern Boys' and Girls' School, Portsmouth, erection two kitchens and dining-rooms, Faulkners, 113a, London-rd., Waterlooville; St. Michael's C/E School, Bournemouth, erection kitchen and dining-room, A. S. Prince & Co., Ltd., 1079, Christchurch-rd., Bournemouth. *Kent*: Beckenham, Hawes Down School, Hawes-la., West Wickham, temporary buildings and demolition of buildings, Thomas & Edge, Ltd., 25, Green's-end, Woolwich, S.E.18. *Lanarkshire*: Forth Public School, temporary classrooms, James Miller & Partners, Ltd., 18, George-st., Edinburgh. *Lancs*: St. Augustine's R.C. School, Manchester, hutted accommodation, W. Fearnley & Sons, Ltd., Constance Works, Eccles New-rd., Salford; St. Mallachy's R.C. School, Liverpool, hutted accommodation, Norwest Construction Co., Ltd., Litherland, Liverpool; Milligate, Rawtenstall, M.N.I. office, Jones & Ralinson, Ltd., 6, Leaf-sq., Liverpool; Eccles Grammar School, kitchen and dining-room and removal of A.R.P. shelters, Jones & Ralinson, Ltd., 6, Leaf-sq., Liverpool.
Middlesex: Raynham-rd. School, Edmonton, temporary buildings, Kniftons (Contractors), Ltd., 905, High-rd., Tottenham, N.17. *Staffs*: St. Peter's C/E Modern School, Stoke-on-Trent, erection temporary building, Ball & Robinson, Trent Bridge, Stoke-on-Trent. *Surrey*: Richmond Park, cottage, Kings (B.D.J.), Ltd., Munster-rd., Teddington. *Warwickshire*: Marston Green, conversion of emergency hospital to maternity hospital, Higgs & Hill, Ltd., Roslyn-chbrs., Warwick-rd., Coventry; Hartfield-cres. School, Acocks Green, Birmingham, temporary building, J. J. Gallagher & Co., 28-36, Lea-rd., Birmingham. *Wilts*: Odstock Hospital, Salisbury, supplying and laying of asphalt roofing, Highways Construction, Ltd., Iddesleigh House, Caxton-st., Westminster, S.W.1. *Worcs.*: Redhill Girls' School, Foxwell-st., Worcester, temporary building, Espley & Co., Ltd., 77, Hign-st., Evesham, Worcs.

¶London (War Dept.).—Works contracts placed by War Dept. for week ended January 10:—Roxburgh: Miscellaneous work, W. F. Murray, Ltd., Hawick. Lancs: Building work, John Turner & Sons (Preston), Ltd., Preston.

Lyme Regis.—Conversion of old laundry building into 4 flats, for T.C. Architects: Lucas, Roberts & Brown, Barnfield Hill, Exeter: *A. Case & Son, Broad-st., Lyme Regis, £3,042.

Manchester.—20 houses, for T.C. L. C. Howitt (F.), C.A.: *A. Wallwork, 25, Granby-rd., Stretford, Manchester (in lieu of tender previously accepted).

Manchester.—Alterations and additions to bakery, Parrott-st., Clayton, for Price Bros. (Bakers), Ltd. J. R. Gradwell, architect, 51, South King-st.: *J. Riley & Sons, 59, Forge-la., Bradford, Manchester 11.

Manchester.—Additions to works, Lilley-st., Lawn-st. and Richard-st., Collyhurst, for Elliott & Crabtree, Ltd. W. Johnson & Son, architects, 27, Oldham-rd., Miles Platting: *J. H. Williamson, Ltd., 750, Oldham-rd., Newton Heath, Manchester 10.

Manchester.—Alterations and additions at Babies' Hospital, Burnage-la., Cringle Hall-rd. and Lindsay-rd., Burnage, for Duchess of York Hospital for Babies' Trustees. Bradshaw Gass & Hope (FF.), architects, 19, Silverwell-st., Bolton: *Wm. Thorpe & Son, Ltd., Chester-rd., Cornbrook, Manchester 16.

Manchester.—Additions to works, Harper-rd., Northenden, for V. H. Iddon, Ltd. J. Frith, architect, 1, North-rd., Audenshaw, nr. Manchester: *Richardson George (Builders), Ltd., Victoria Works, Mellor-st., Droylsden, nr. Manchester.

Manchester.—Alterations and additions to factory, Malpas-st., Great Jones-st. and Birch-st., Gorton, for Joseph Cockshoot & Co., Ltd. J. W. Beaumont & Sons (FF.), architects, Danlee-bldgs., 53, Spring-gdns.: *R. Carlyle & Co., Ltd., Elsinore-rd., Old Trafford, Manchester 16.

Nailsworth.—Four houses at Upper Tynings, for U.D.C.: *J. Simmonds & Sons, Minchinhampton.

Newcastle, Staffs.—50 additional B.I.S.F. houses at Bradwell estate, for T.C. C. B. Parkes (L.), architect, Estate Office, Bournville Village Trust, King's Norton, Birmingham 30: *Pauling & Co., Ltd., 26, Victoria-st., London, S.W.1.

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Newquay.—Eight Stonecrete houses, for U.D.C.: *Noye Bros., Helston, Cornwall, £8,750.
Overton.—12 houses at School-la., for R.D.C. Architect: F. A. Roberts, East Chambers, Mold: *Alun Edwards, Ltd., Cefn-y-Bedd, nr. Wrexham.
Oxford.—First stage of extensions at Radcliffe Infirmary, for Board of Governors. Collcutt & Hamp, 7-8, Queen-sq., High Wycombe, architects: *Hinkin & Frewens, Ltd., Canal-st., Oxford.
Peterborough. — Erection of Dogsthorpe-Newark County Primary school on a prime cost plus fixed fee basis, for Joint Education Board. City E. & S.: *W. J. Simms, Sons & Cooke, Ltd., Nottingham. £3,420. (Prime cost plus fixed fee contract. Amount is for fixed fee tendered.)
Pewsey.—Eight "Airey" houses at Tidworth and four at Ludgershall, for R.D.C.: *Maslin Bros., Devizes, £16,850, including site works (subject to M.H. approval).
Ploughley.—Six "Airey" houses at Stoke Lyne, for R.D.C.: *Victor Wilson (Builder), Ltd., Shires End, North Park, Iver, Bucks. £8,943.
Ruthin.—10 Airey houses, for R.D.C.: *Clifford Hughes & Co., Ruthin, £15,669.
Scarborough.—Six houses at Brompton, for R.D.C. J. Hellewell, architect, Pelican-chbrs., St. Nicholas-st.: *F. C. Heptinstall, £6,730.
Scarborough. — Workshop and store at Scholes Park-rd., for Ridehalgh Bros., Scholes Park-rd., Scarborough. Architect: F. Baker, York-pl., Scarborough: *Direct Labour.
Southgate.—Rebuilding Nos. 97-101, Chase-rd., Southgate, N.14. E. J. Westoby & Son, architect, 59, Station-rd., N.21: *Newby Bros., 309, Chase-rd., N.14.
South Molton.—Six houses at Chittlehamholt, for R.D.C.: *E. J. Kingdon, South Molton, £9,282 (subject to M.H. approval).
South Shields.—46 houses for T.C.: *G. Bailey, Ltd., Westgate-rd., Newcastle-on-Tyne.
South Shields.—Reallocation of housing contracts, for T.C.: *R. Summervell & Sons, Rutland-st., South Shields (16); *R. Brown & Sons, Lord-st., South Shields (16); and *G. Thornton & Co., Porchester-st., South Shields (14).
Staveley.—38 houses at Inkersall Green estate, for U.D.C. H. W. Gilman, E. & S., Council Offices, Lowgates: *B. G. Porter, Ltd., Clowne, nr. Chesterfield.
Stretford.—30 houses at Moss Park estate, for T.C. A. H. Perry, B.S.: ‡Albert Locke (1940), Ltd., 166, Lostock-rd., Davyhulme, Urmston, Manchester.
Swansea.—New canteen and common room, for University College of Swansea. Architect: J. Herbert Jones (F.). Quantity Surveyor: B. W. Ellis, F.R.I.C.S.: ‡Bennett Bros. (Contractors), Ltd., 49, Carlton-terr., Swansea.
Torquay.—Houses at Coombe Pafford estate, for T.C.: *Mumford, Torquay (10); *R. Kellow & Son, Torquay (6); *Chelston Building Co., Torquay (8).
Wallasey.—26 "Airey" houses, for T.C.: *W. F. Farrell, Cobham-rd., Moreton, Wallasey. Work commencing.
Walsall.—Alterations and additions at Beacon Lodge Hospital (female side), for T.C. M. E. Habershon, B.E.: *Law & Son, Pelsall, Walsall.
Walsall.—98 Orlit houses at Dudley's Fields site, for T.C.: *Tarslag, Ltd., Wolverhampton, £128,968 (subject to M.H. approval).
Wimbledon.—20 maisonettes and 12 houses at Herbert-rd. and Graham-rd., S.W., for B.C. Thomas Webster, A.M.I.C.E. (B.S.): *Styles (Wimbledon), Ltd., 67, The Drive, Wimbledon, S.W., £43,158.

CORRECTION

Ogwen.—The contract for 20 houses with site works, etc., at Caerhun and Talybont, for the R.D.C., has been placed with Evans and Partners, builders and contractors, Pentraeth, and not Wm. Evans & Sons (Pentraeth), Ltd., Maeslodwig Yard, Station-rd., Bangor, as stated in our issue for January 9.

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